SONY

3-786-946-11 (2)

Video Editing Controller/Titler

RM-E300

Operating Instructions page 2

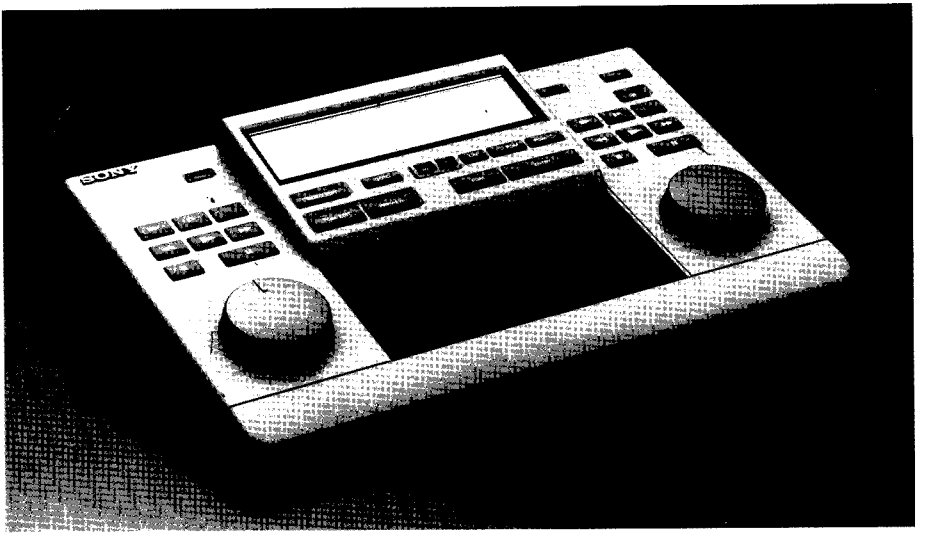
Before operating the unit, please read this manual thoroughly and retain it for future reference.

Mode d'emploi page 74

Avant la mise en service de cet appareil, prière de lire attentivement ce mode d'emploi que l'on conservera pour toute référence ultérieure.

Manual de instrucciones página 146

Antes de emplear la unidad, lea cuidadosamente este manual, y consérvelo para futuras referencias.



© 1989 by Sony Corporation

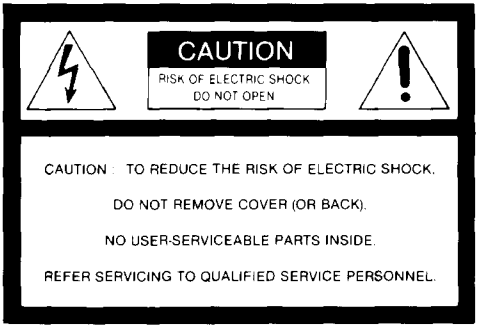
OWNER'S RECORD

The model and serial numbers are located at the bottom. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. RM-E300 Serial No. _____

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION:
TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

INFORMATION

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient the receiving antenna
Relocate the equipment with respect to the receiver
Move the equipment away from the receiver
Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:
"How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

For the customers in Canada
This apparatus complies with the Class B limits for radio noise emissions set out in Radio Interference Regulations.

Precautions

On safety

- Do not open the cabinet. Refer servicing to qualified personnel only.
- Should any liquid or solid object fall into the cabinet, disconnect the power source and have the unit checked by qualified personnel before operating it any further.

On power sources

Operate the unit only on 6 V DC. For AC operation, use only the supplied AC-D4L AC power adaptor.
Do not use any other AC power adaptor as it may cause malfunction.

On installation

Do not install the unit near a heat source such as a radiator or an air duct, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

On cleaning

Clean the cabinet, panel and controls with a soft dry cloth, or a soft cloth lightly moistened with a mild detergent solution. Do not use any type of solvent, such as alcohol or benzine, which might damage the finish.

If you have any questions about this unit contact your Sony dealer.

Table of Contents

Outline of the RM-E300 5
The video equipment used with this unit 5
About the instruction manual 6
Features 6

Preparation

To insert the lithium batteries 8
Before connection 9
Connection of the video/audio jacks and the power source 10
Selection of the control of the recorder 11
Connection of the control signal 12
When the recorder is equipped with the CONTROL L connector 12
When the recorder is equipped with the CONTROL S connector 13
Position of each select switch 14
When using a Sony recorder without the CONTROL L or CONTROL S connector 15
When using other manufacturers' video product as the recorder 18

Let's try it out

Quick guide for operations 21

To create the title

Kinds of title 24
To create the character title 24
To type the title 25
To select the color 27
To select the position 28
To create the video image title with the video camera recorder 30
To view the title which the video camera recorder is shooting on the monitor (or TV) 31
To memorize the title 32
To select the color of the title 35
To reverse the color scheme of the title and the background 35
To overlay the character title and the video image memory 36
To clear the memorized title 37
To display the memorized title 38
To display the title as it is 38
To scroll the title from bottom to top 38
To color the background of the character title gray .. 40

Editing

About the ways of editing 41
To edit the entire tape contents to another tape (dubbing) 42
Preparations for editing 43
To edit the tape 43
Before editing 43
To record the beginning of the original tape at the exact starting point (timing adjust) 44
To edit only desired scenes while viewing playback (manual assemble editing) 46
To edit only desired scenes automatically in the desired sequence (automatic assemble editing) 49
Buttons and shuttle dial to locate the cut-in and cut-out points 50
To locate the cut-in and cut-out points 52
For editing rehearsal 55
To change the editing point 56
To execute automatic assemble editing 58
To erase the program 61

Others

Location and function of controls 64
Caution indications 71
Specifications 72
Troubleshooting 73

The RM-E300 editing controller is used to select and record desired scenes from an original tape in a desired sequence. It also allows for superimposing character titles created with the keyboard and/or a telop card shot with the video camera recorder onto the tape to be edited. (Only titles cannot be inserted to the edited tape.)

Use a Sony product for playback, but any desired VCR can be used for recording.

The cut-in and cut-out points are memorized from the counter number, so frame editing is impossible.

The Video Equipment Used with This Unit

Player

Use a Sony product that has one of the following connectors:

8 mm Video camera recorder	REMOTE 5-pin connector or stereo mini-minijack
8 mm format VCR	CONTROL L 5-pin connector
ED Beta format or Beta format VCR	
VHS format VCR	

In this manual, the 8 mm video camera recorder is used for explanations.

Recorder

Sony recorder	**Video product**	Use a video product that has the following connector.
	ED Beta or Beta format VCR **VHS format VCR** **8 mm format VCR**	CONTROL L 5-pin connector or CONTROL S (CONTROL) minijack
	8 mm format video camera recorder	REMOTE 5-pin connector or stereo mini-minijack
	VCR which is operated with an infrared remote control unit.	
Other manufacturers' video products which is operated with an infrared remote control unit. (Some VCRs cannot be used with this unit.)		

For connections and the position of each select switch, see page 10 to 20.
Connect the monitor (or TV) to the recorder.

WHEN YOUR RECORDER IS DESIGNED BASED ON THE SECAM COLOUR SYSTEM, THE OPTIONAL PAL-SECAM TRANSCODER IS NECESSARY TO CONNECT THE RM-E300 AND THE RECORDER.

About the Instruction Manual

This manual consists of 6 sections.

(page)

1 **Outline and features** (5, 6)

2 **Preparation** (8–20)
The connections are explained. Select the appropriate connection according to your VCR.

3 **Let's try it out** (21–23)
Referring to the quick guide for operations, let's try editing. Some examples are included in the guide. If no trial is needed, skip this step.

4 **To create the titles** (24–40)

5 **Editing** (41–63)

6 **Others** (64–73)
Locations and function of controls, specifications, troubleshooting, etc. are included.

Features

Each tape transport buttons for the player and the recorder
As the player and the recorder can be operated with this unit alone, it is easy to edit the tape.

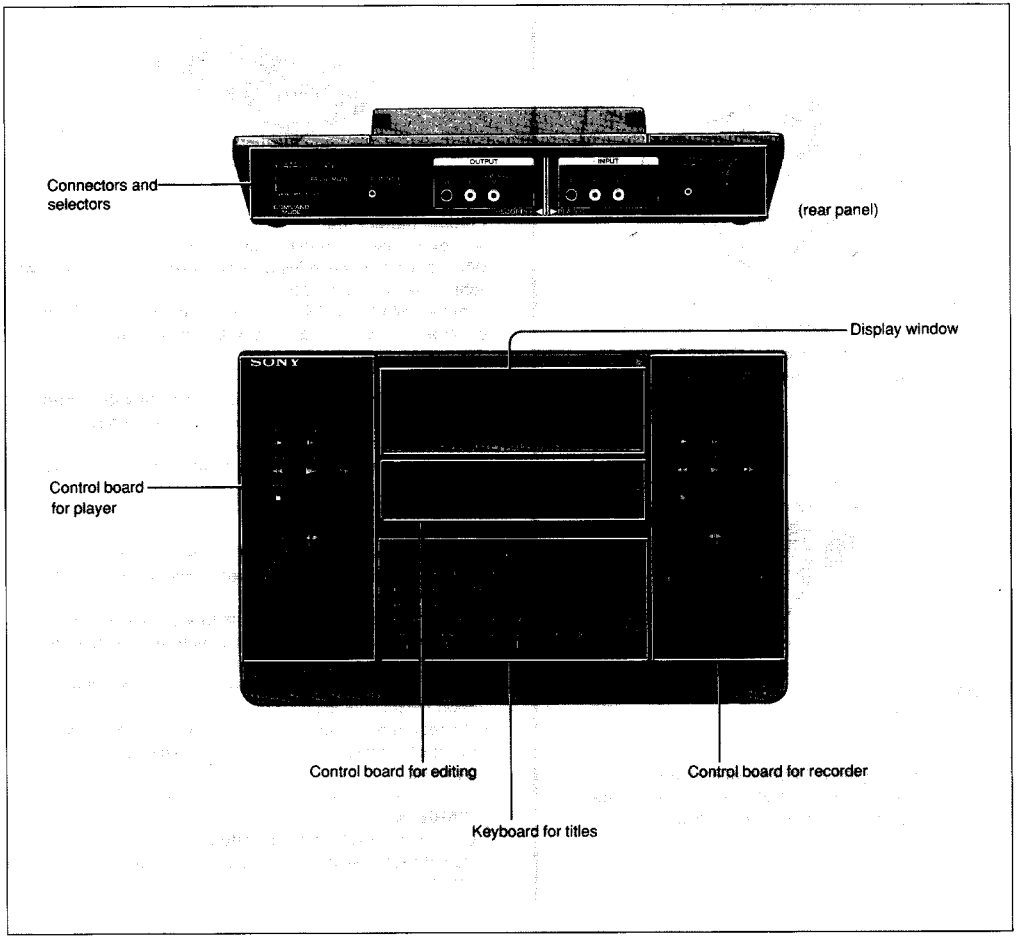
Compatible with many kinds of VCR
A Sony or other VCR can be used for the recorder by connecting it to the CONTROL L or CONTROL S connector, or memorizing the infrared control signal of the remote control unit.

Automatic assemble editing
Up to 8 desired scenes can be memorized in this unit and edited automatically in a desired sequence.

Wide liquid crystal display window
Data for editing is displayed.

Title function
The character title and/or the video image from the connected video camera recorder can be memorized and superimposed onto a desired scene.

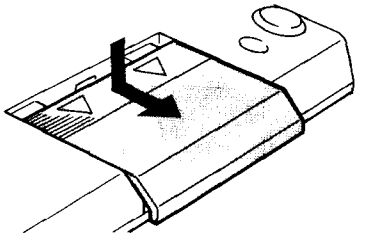
The RM-E 300 video editing controller facilitates all the edit operations by controlling both the player and the recorder. For details on "Location and function of controls", see pages 64 to 70.



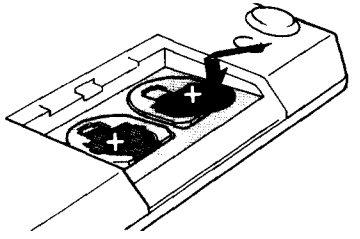
To Insert Lithium Batteries

This unit uses two lithium batteries to keep data for editing, titles or infrared control signal of the remote control unit in memory.

1 Open the cover of the lithium battery compartment (bottom).



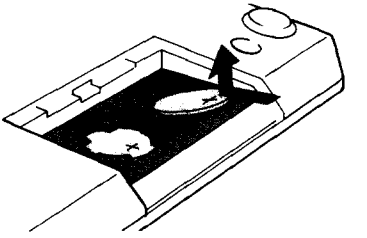
2 Install the supplied two CR2025 lithium batteries with correct polarity.



3 Close the cover.

4 Connect the AC power adaptor and turn on the POWER switch on the left side. Check that the ⊏□ mark is not displayed.

To remove the lithium batteries
Press the side of the battery in the direction indicated for installation.



Lithium battery life
Approximately 1 year in normal operation.
When the lithium batteries become weak, the ⊏□ mark will light in the display window. In this case, replace the batteries with Sony CR2025 lithium batteries. Use of other batteries may present a risk of fire or explosion.

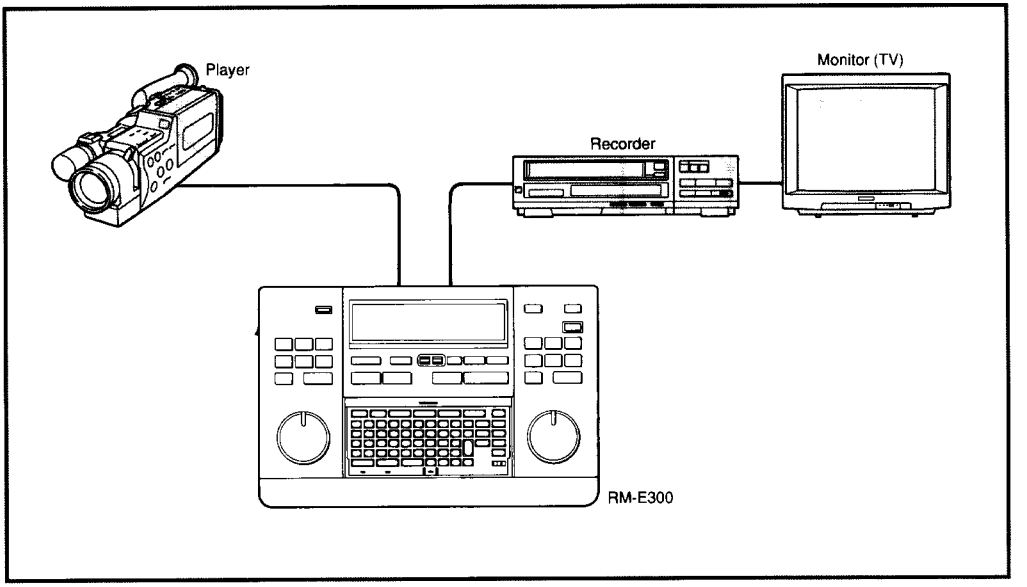
Note
Replace the batteries within approximately 20 seconds to keep the data for editing, titles or infrared control signal of the remote control unit in memory.
When the batteries are discharged completely, memorize them again.

Notes on lithium battery
- Keep the lithium battery out of the reach of children. Should the battery be swallowed, immediately consult a doctor.
- Wipe the battery with a dry cloth to assure a good contact.
- Be sure to observe the correct polarity when installing the battery.
- Do not hold the battery with metallic tweezers, otherwise a short-circuit may occur.
- Do not break up the battery nor throw it into a fire, which might cause it to explode. Carefully dispose of the used batteries.

WARNING
Battery may explode if mistreated.
Do not recharge, disassemble or dispose of in fire.

Before Connection

The editing controller, player, recorder and the monitor (or TV) are connected as follows.



- Connect the RM-E300, player and recorder as the above illustration. For details on the connection, see the following pages.
- Use a Sony product equipped with the CONTROL L (or REMOTE) for the player.
- When the CONTROL (L or S) connector is not equipped with the recorder, control the recorder remotely with an infrared remote control unit.

Notes on connection

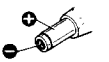
- Be sure to supply the power to the recorder and the player from a wall outlet (using an AC pack if necessary). Never use battery packs for the power source as they may discharge during of editing.
- Connect the red plug to the right jack, the white plug to the left jack and the yellow plug to the video jack.

Note on power connection

Disconnect the AC power adaptor after the power of this unit is turned off so that the memorized data is not erased.

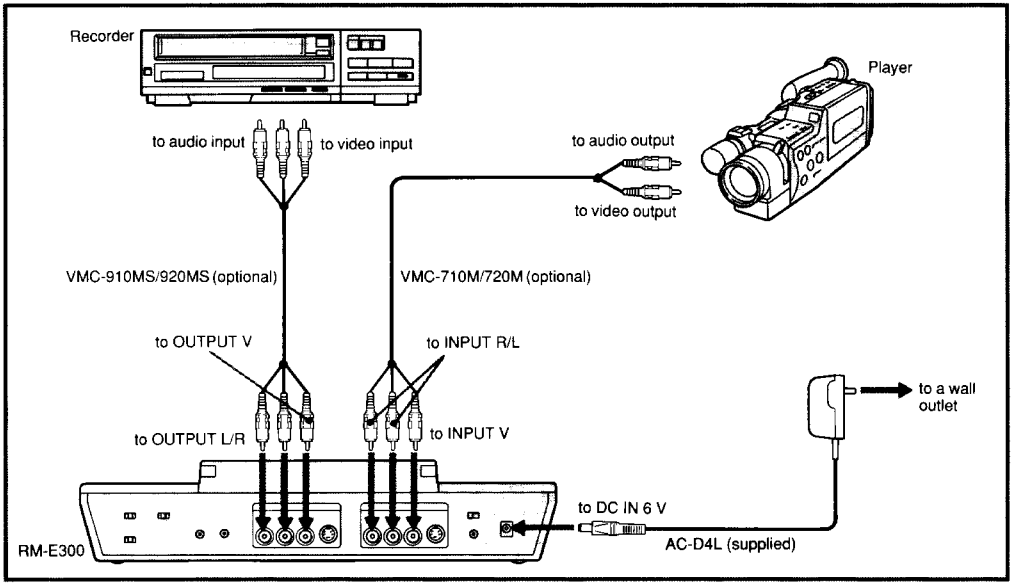
Note on the AC power adaptor

If an AC power adaptor not manufactured by Sony is used, a fuse must be installed in the adaptor cord and the polarity of the plug must be as illustrated.



Polarity of the Sony's plug

Connection of the Video/Audio Jacks and the Power Source



When the recorder and the player are equipped with the S VIDEO connector
Use the optional YC-15V/30V S video connecting cable.

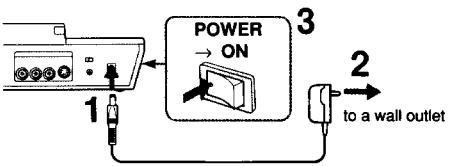
Note
The S video signals to be input to the S PLAYER INPUT connector will be output only from the S RECORDER OUTPUT connector.

When the recorder is a monaural type
Use the optional VMC-710M/720M connecting cable.

When the player is a stereo type
Use the optional VMC-910MS/920MS connecting cable.

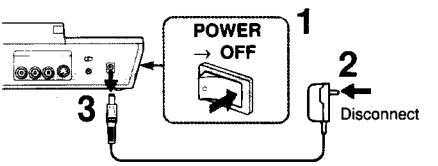
Notes on when the power is turned on or off

When the power is turned on



If the AC power adaptor is connected to this unit after the power is turned on, it may cause a malfunction. If this happens, turn the power off and on again.
When the power is turned on, the power lamp may light momentarily. This is not a failure of the unit.

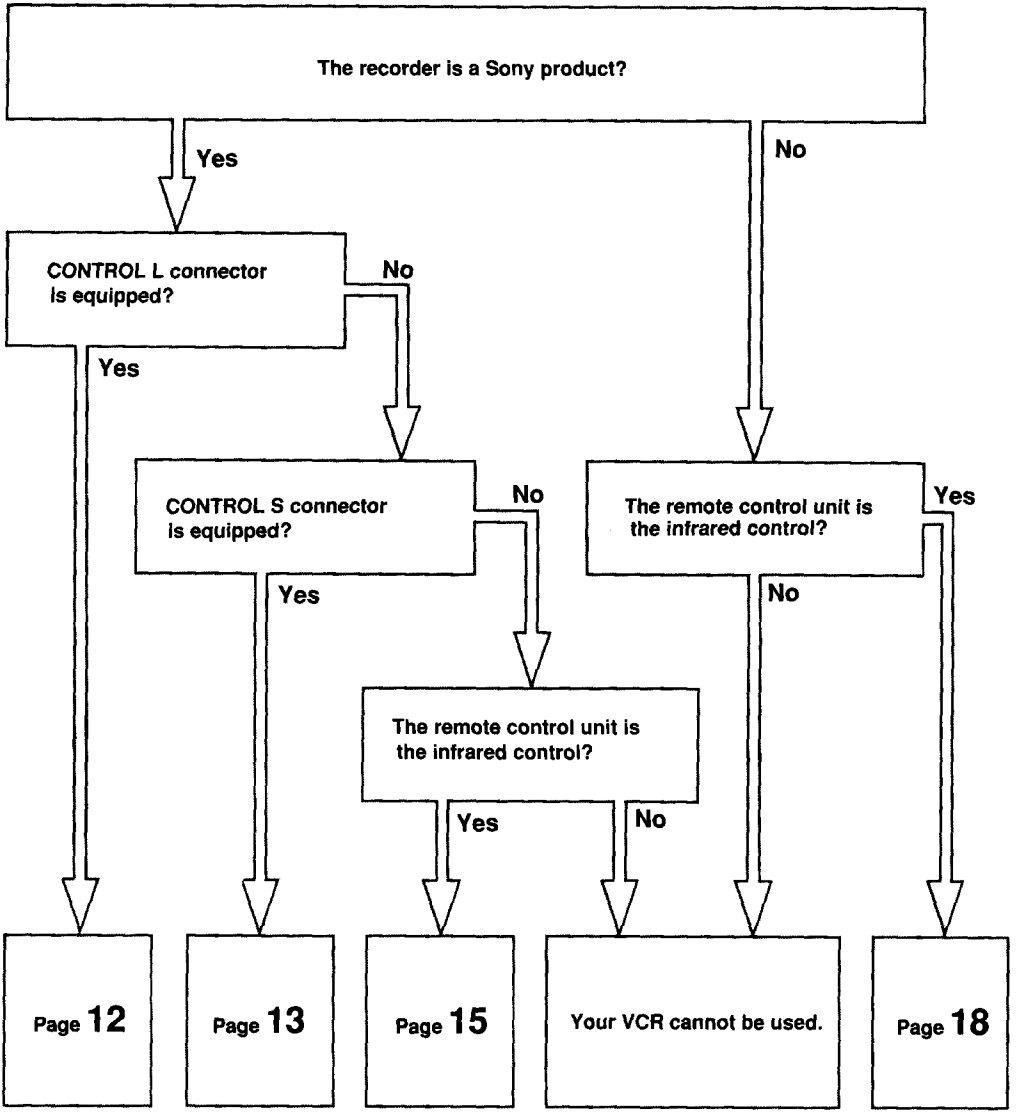
When the power is turned off



If the AC power adaptor is disconnected before the power is turned off, the memory back up function cannot function and the lithium battery will be rapidly consumed.

Selection of the Control of the Recorder

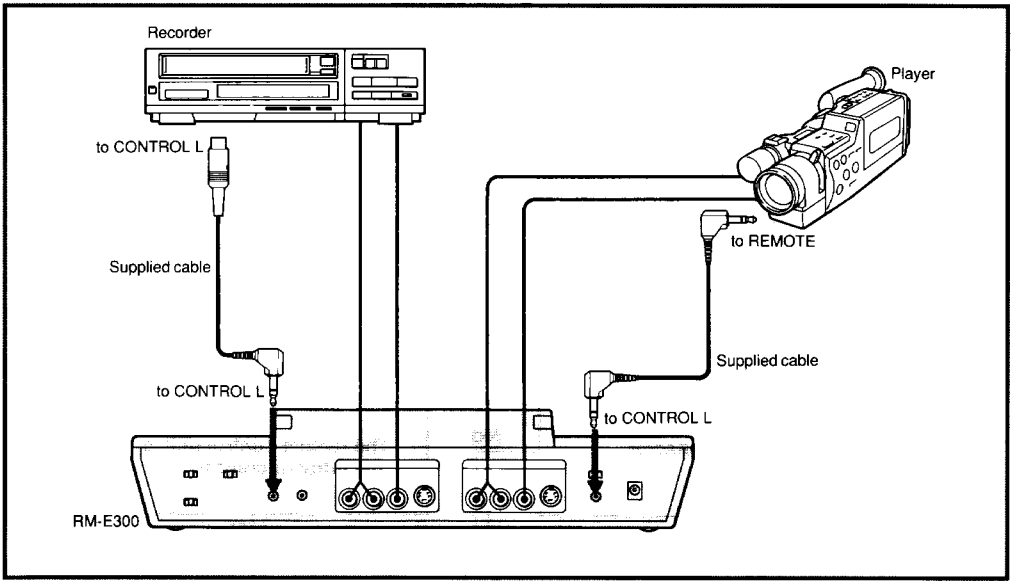
To select the connection or control corresponding to the recorder, follow the flow chart below.



Connection of the Control Signal

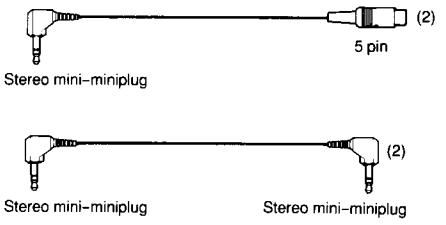
Only a Sony video product can be connected to the CONTROL L or S connector on this unit.

When the recorder is equipped with the CONTROL L connector



About the supplied connecting cable for the CONTROL L connector

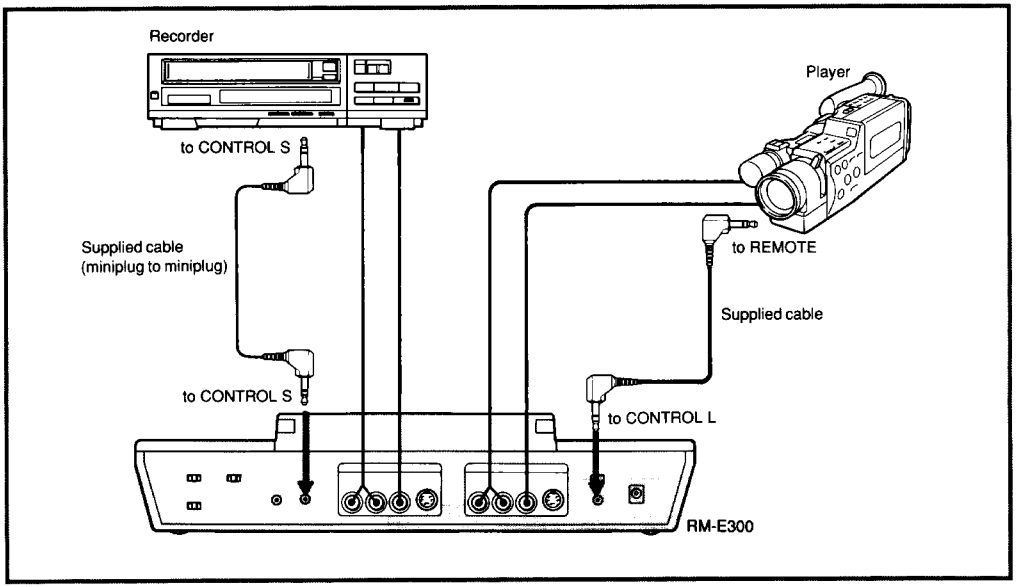
Two kinds of four cables are supplied.
Use them according to the shape of the CONTROL L (or REMOTE) connector on the recorder and the player.



Note

When the VCR is equipped with the MASTER/SLAVE selector, set the selector to SLAVE.

When the recorder is equipped with the CONTROL S connector

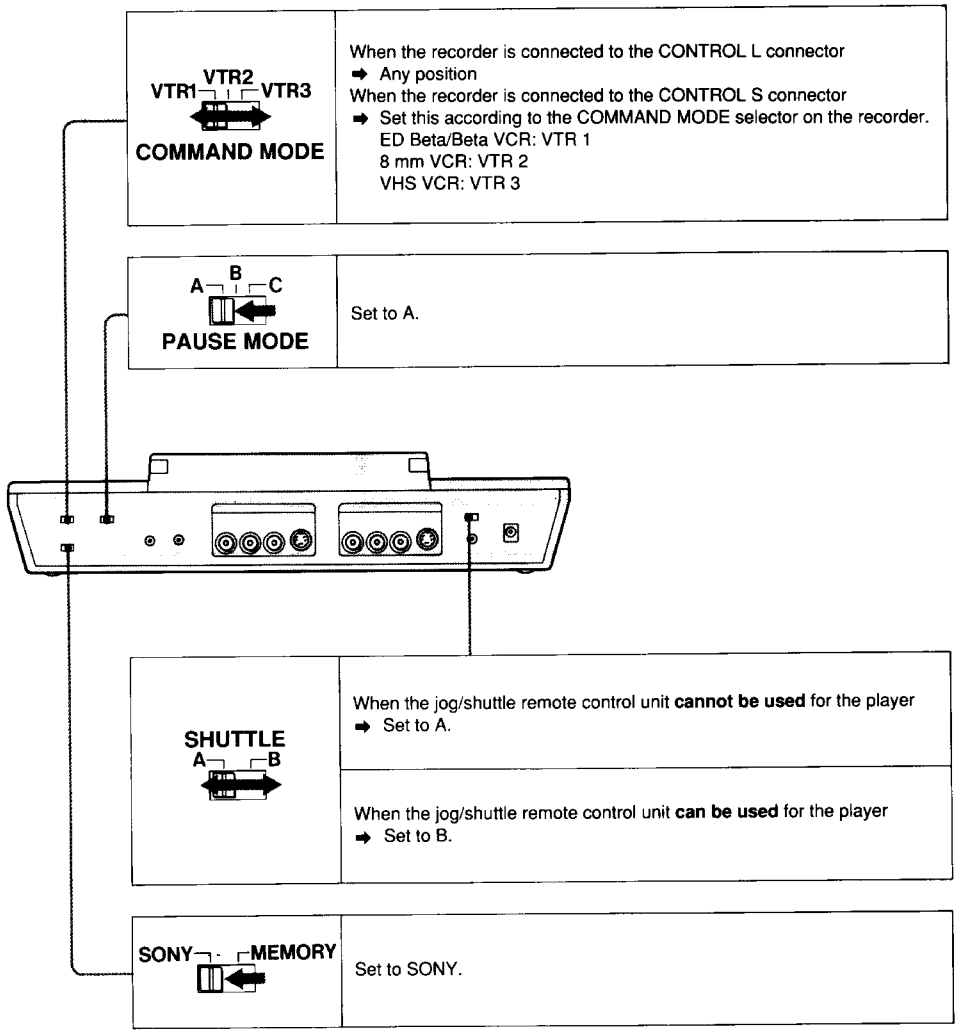


If the recorder is connected to the CONTROL S connector, disconnect the cable from the CONTROL L connector for the recorder.

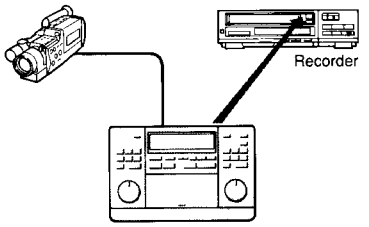
When the recorder is equipped with both CONTROL L and CONTROL S connectors
We recommend use of the CONTROL L connector.

Position of Each Select Switch

Set the switches on the rear panel as follows.

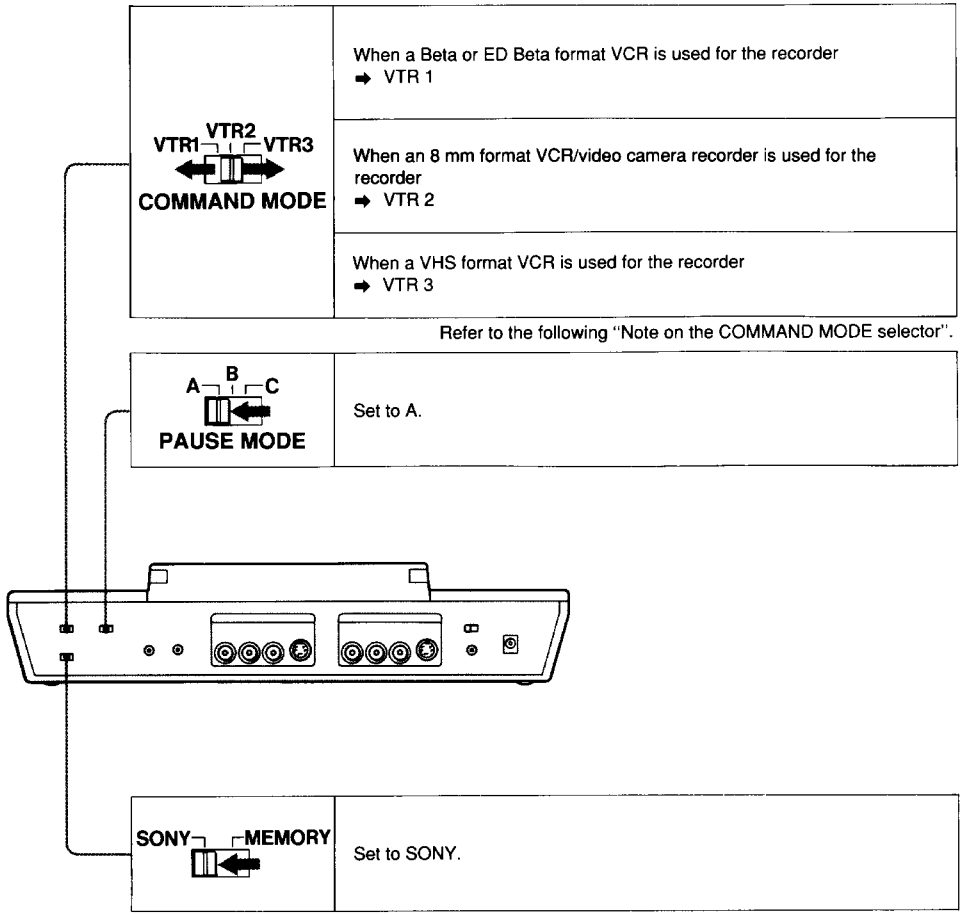


When Using a Sony Recorder without the CONTROL L or CONTROL S Connector

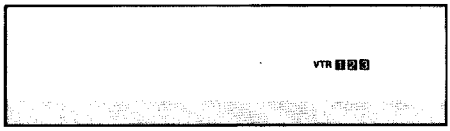


If the recorder can be operated with the infrared remote control unit, the recorder can also be operated with this unit. The tape transport of a Beta format, 8 mm format and VHS format VCR can be controlled with this unit.

Set the switches on the rear panel as follows.



When the remote control signal is transmitted correctly, the VTR 1, 2 or 3 (setting mode) indication is displayed in the display window.



Note on the COMMAND MODE selector
When the infrared beam detector is equipped with the player and the recorder

1 Set the COMMAND MODE selector on the player to a different position from that on the recorder.

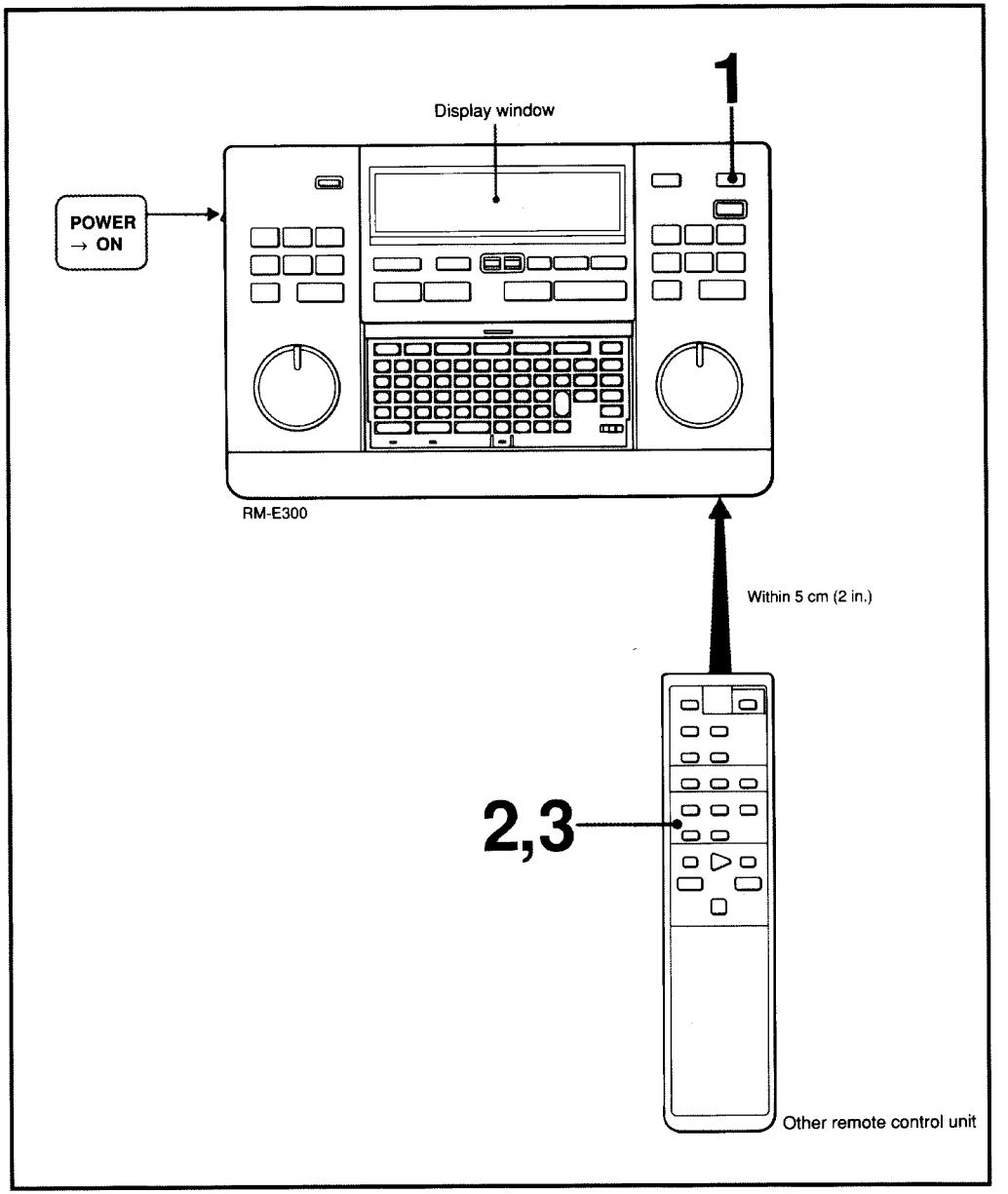
2 Set the COMMAND MODE select switch on this unit to the same position as that on the recorder.

3 If the COMMAND MODE on the recorder and the player are the same and they are not equipped with the selector, cover the detector of the player with paper or equivalent.

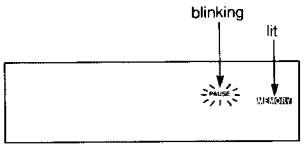
Others
- When the connecting cable is connected to the CONTROL L or CONTROL S connector on this unit, the infrared beam cannot be emitted.
- Even if this unit is equipped with tape transport functions, if the recorder is not equipped with some of their functions, it cannot be operated with this unit.

Memorize the control signal of the tape transport in this unit.

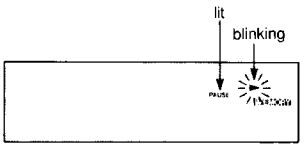
Note
The supersonic waves control signal or the special function will not be memorized in this unit.



1 **Press the COMMAND MEMORY button.**

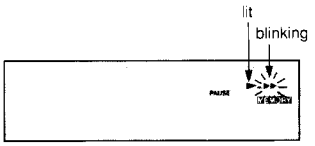


2 **Press the pause button on the other remote control unit.**



The PAUSE mark lights and this function has been memorized in this unit.

3 **Press the play button on the other remote control unit.**



Press the appropriate button on the other remote control unit to memorize the signal in the blinking mark on this unit until the signal is memorized in the X 2 mark.

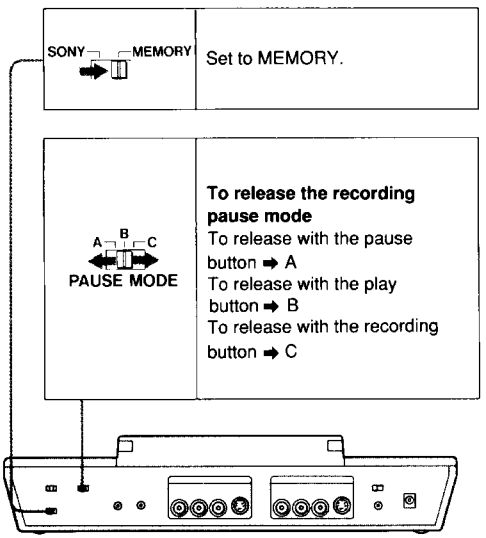
Mark and function

PAUSE : pause
▶ : playback
▶▶ : fast-forward
◀◀ : rewind
STOP : stop
REC : recording
II▶ : frame advance playback
I▶ : slow speed playback
× 2 : double speed playback

If the button corresponding to the blinking mark is not equipped with other remote control unit, press the COMMAND MEMORY button until the desired mark appears.

All marks will disappear from the display window approximately three seconds after the functions are memorized.

Set the switches on the rear panel as follows

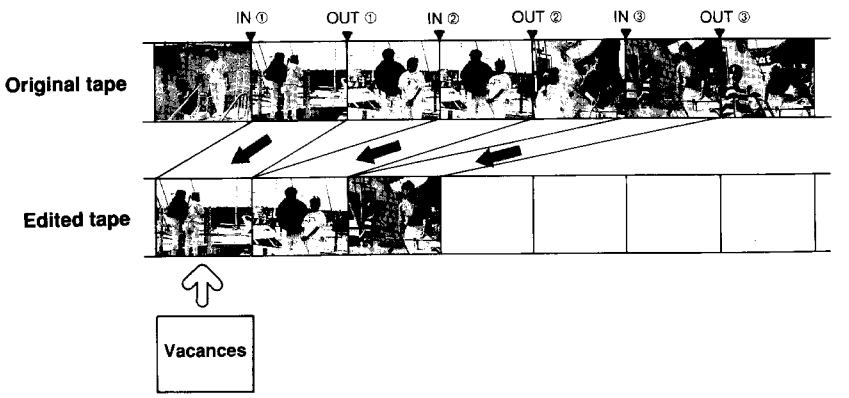


Press the button on another remote control unit within 30 seconds.	If you do not press any button for about 30 seconds after the mark blinks, memory mode will be released.
To skip the memory	Press the COMMAND MEMORY button. Each time you press the COMMAND MEMORY button, the next mark blinks.
If the button corresponding to the blinking mark is not equipped with another remote control unit	You can memorize another function in that mark instead.
To stop the memorizing	Press the COMMAND MEMORY button until the x 2 mark blinks. Press the COMMAND MEMORY button again.
To clear the memory	Press the AC button while the MEMORY mark is displayed. All the memorized data will be erased.

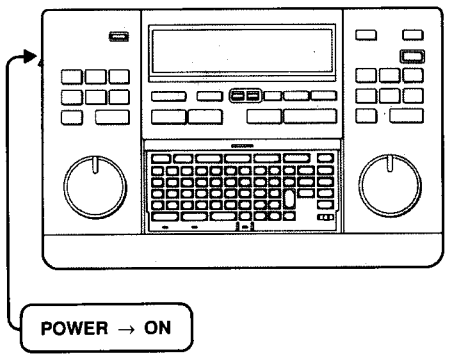
Notes

- Press the button firmly for more than 3 seconds.
- After the blinking stops, press the button to memorize the signal in the next blinking mark.
- During memory operation, remote control operation cannot be performed with this unit.
- When the power is turned off during memory operation, the memorized data will be cleared.

Quick Guide for Operations



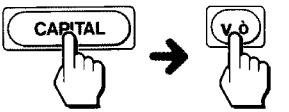
1 Type a title.



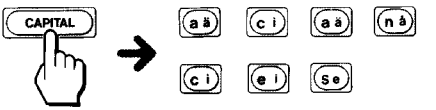
1 Press the appropriate PAGE button.

2 Press the CHARACTER button.

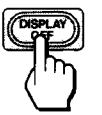
3 Press the CAPITAL button and then type v.



4 Press the CAPITAL button and then type a, c, a, n, c, e, and s.

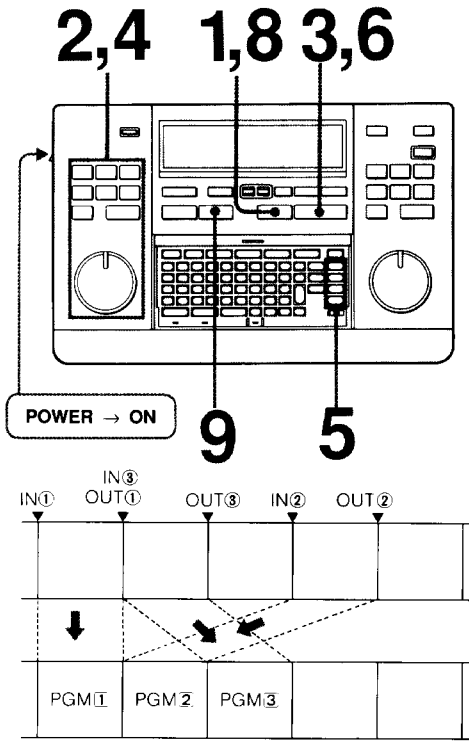


5 Press the DISPLAY OFF button.
(Before pressing the DISPLAY OFF button, the title can be colored or moved. For details on these operations, see page 27 or 28.)



Continued

2 Decide the cut-in and cut-out points and the point where the title appears.



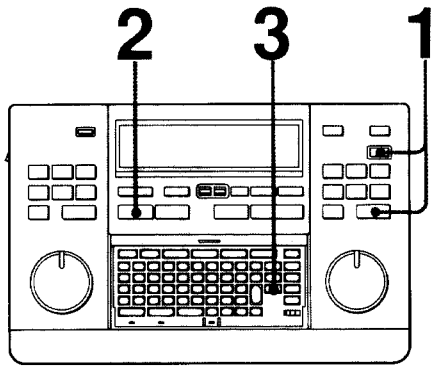
1 Press the PGM button.

5 To display the title, press the appropriate PAGE button during locating the cut-out point.

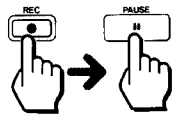
2 6 7

Continued

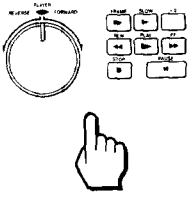
3 Execute editing (automatic assemble editing).



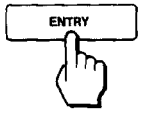
1 Locate the point where you want to start a new recording. First press the ● REC button, and then press the ❚❚ button.



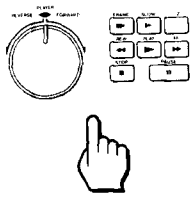
Locate the cut-in point (IN ①) with the tape transport buttons for the player.



3 **Press the ENTRY button at the cut-in point.**

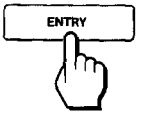


4 **Locate the cut-out point (OUT ①) with the tape transport buttons for the player.**



Press the ENTRY button at the cut-out point

The cut-in and cut-out points have been memorized.



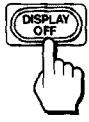
8 **After memorizing all of the programs, press the PGM button.**

9 **Press the PREVIEW button to check the programs.**

Repeat steps 2 to 6 to memorize other programs.

2 **Press the PGM EDIT button.**

3 **To turn off the title, press the DISPLAY OFF button during playback.**



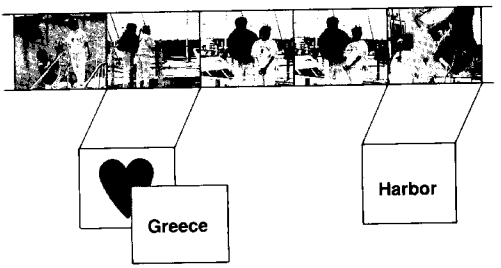
To check the edited scene

1 Rewind the tape by pressing the ◀◀ button for the recorder.

2 Play back the edited tape by pressing the ▶ button for the recorder.

Kinds of Title

This unit allows you to create and memorize the title and to superimpose it to the editing tape.
The character title created with the keyboard and the video image memory title shot with the video camera recorder can be memorized in this unit. The character title and the video image memory title can be overlaid each other. The 4 titles are memorized in PAGE 1 to 4.



To Create the Character Title

Select the PAGE.

↓

Select the character title mode.

↓

Type the title.

↓

Select the color.

↓

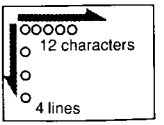
Select the position.

↓

Select the next PAGE.

To Type the Title

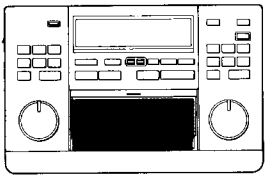
12 characters per line,
4 lines per page

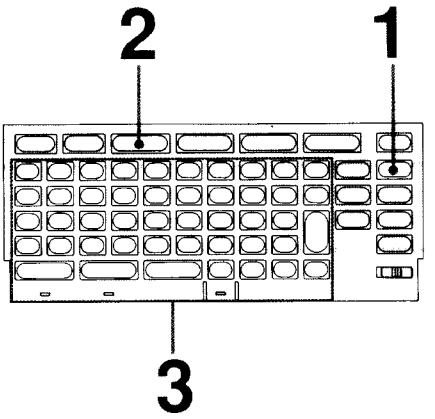


Ex. When you want to type the following title and memorize it in PAGE 1.

March 1989
Trip to
Greece

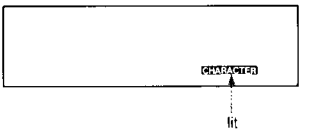
POWER → ON



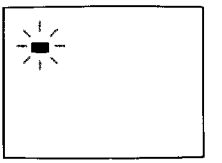


1 **Press the PAGE 1 button.**

2 **Press the CHARACTER button so that the CHARACTER indication is displayed in the display window.**



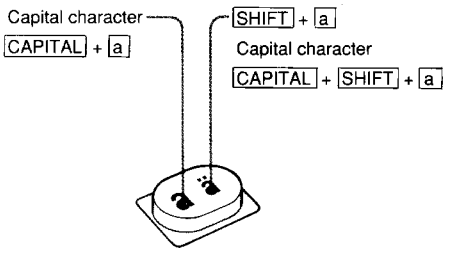
on the monitor (or TV)

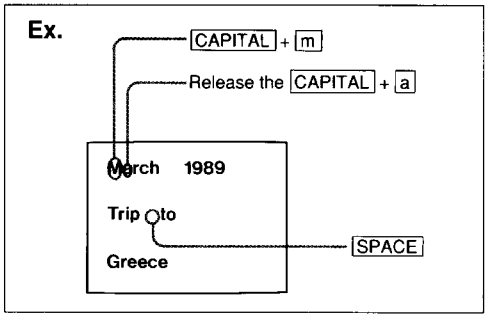


The character is typed at the point where the cursor blinks.
To move the cursor, press the ↑, ↓, →, ←, or ↵, button.

Continued

3 Type the character.



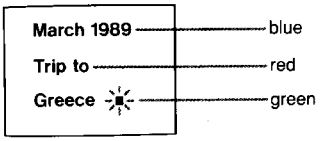


To space the characters	SPACE
To insert another character between the characters	INS + Character The INS lamp lights. To clear the insert mode, press the INS again.
To delete the character	DEL
To open a new line	↵

Note
The SHIFT, CAPITAL and INS lamps show that each button is functioning.
To release the function, press each button again.

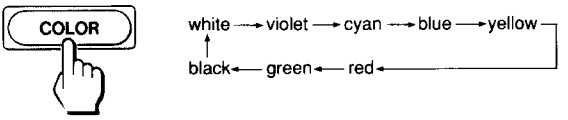
You can select the color and position of the created title.
Go on to the following operation.

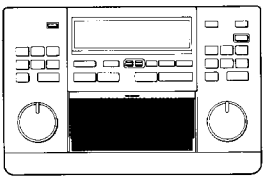
To Select the Color

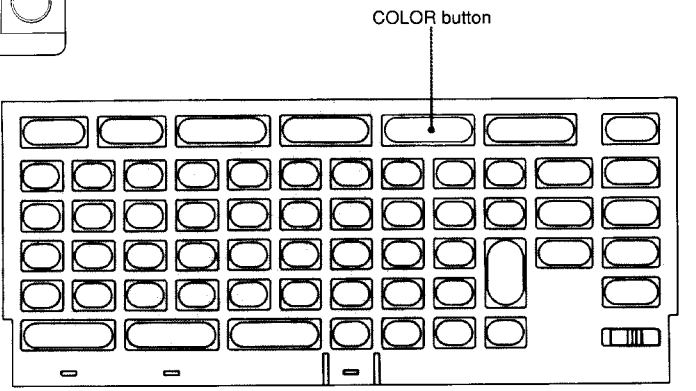


The color is selected for each line. Move the cursor to any point on the line to be colored and select the color from 8.

Each push of the COLOR button sequentially changes the color.

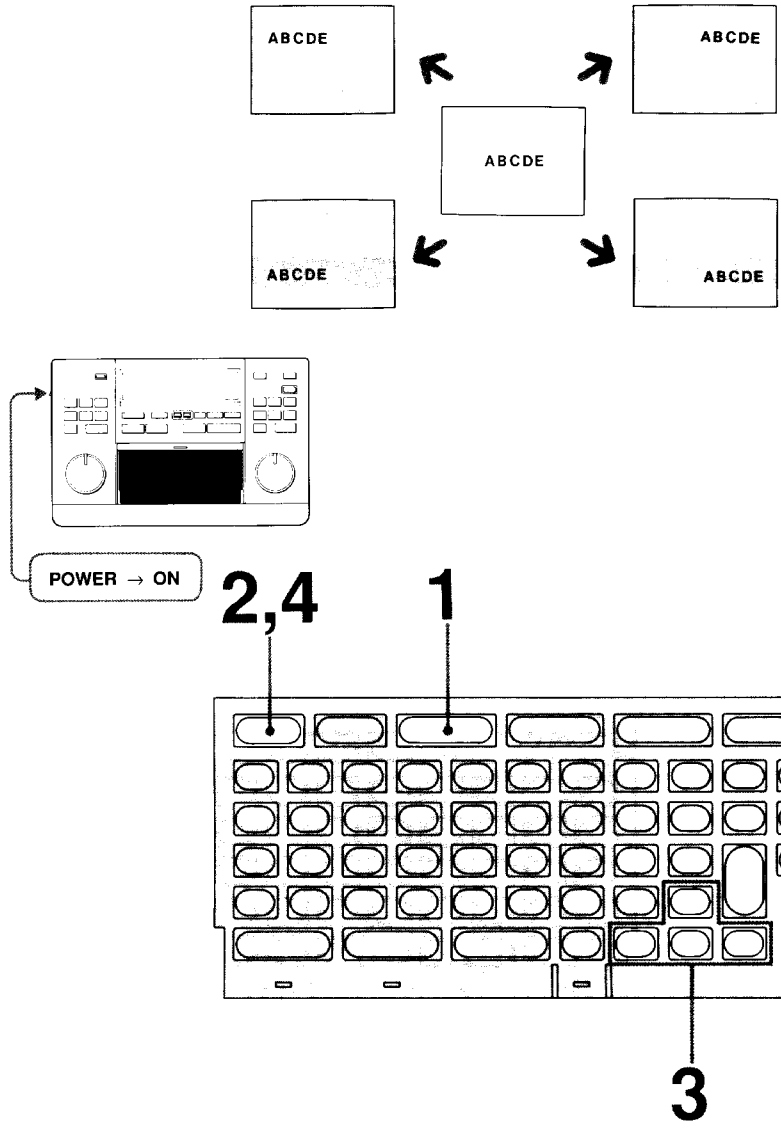




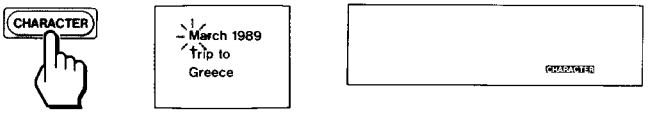


To Select the Position

The title is moved to the desired position on the screen as follows.

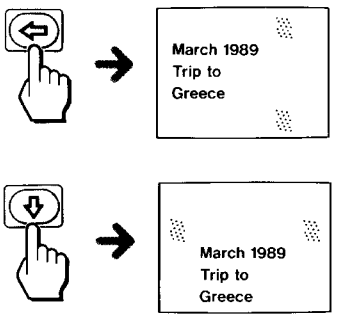


1 **Press the CHARACTER button so that the CHARACTER indication is displayed in the display window.**

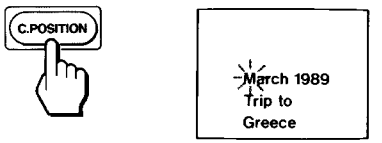


2 **Press the C.POSITION button.**

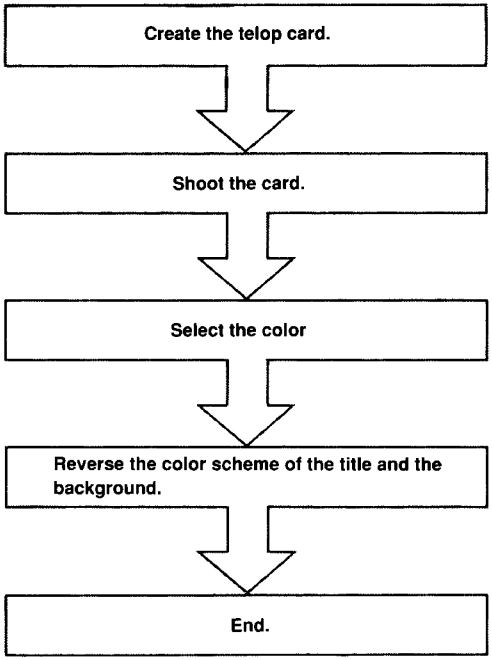
3 **Position the title with the ←, ↓, ↑, or → button.**



4 **Press the C.POSITION button again.**
The mark disappears.

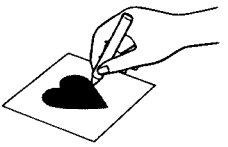


To Create the Video Image Title with the Video Camera Recorder

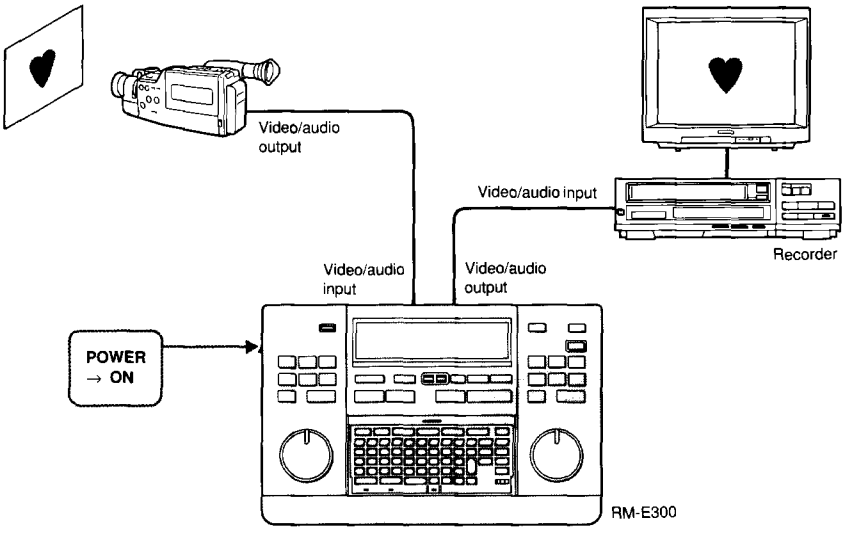


To make a desired telop card

- Use a white, plane card and write the title on it in a deep color (black is recommended for the best result) in thick characters.
- It is better to write the title simply and boldly.



To View the Title which the Video Camera Recorder is Shooting on the Monitor (or TV)



1 **Attach the power source to the video camera recorder.**

2 **Set the POWER switch on the video camera recorder to CAMERA.**

3 **Set the input select switch on the recorder to the line input.**

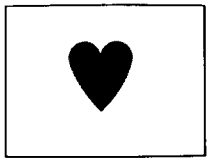
4 **Select the channel for the recorder or set the input selector to VTR on the monitor** (or TV).

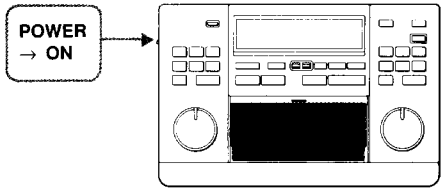
Hints for shooting

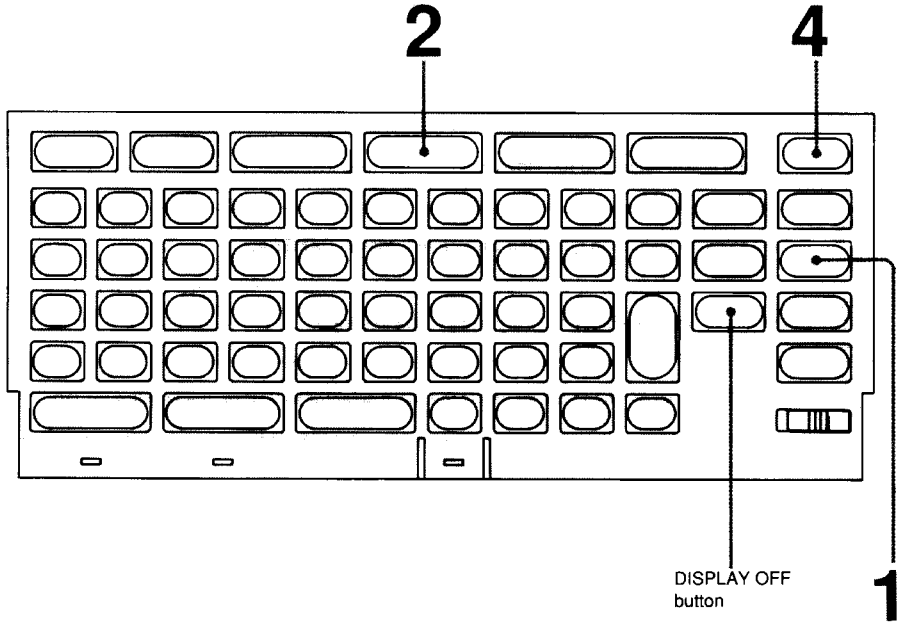
- When deciding the title size, check the effective picture size on your video monitor.
- Use of an appropriate light is recommended for a better result.

To Memorize the Title

Ex. When you want to memorize the video image title in PAGE 2.





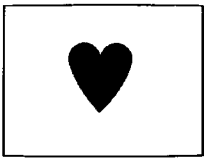


1 **Press the PAGE 2 button.**

2 **Press the IMAGE button so that the IMAGE indication is displayed in the display window.**

3 **Check the focusing on the monitor** (or TV).

4 **Press the MEMORY button.**
The title will be memorized.

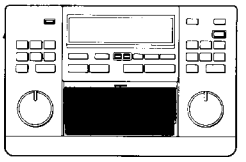


To select the color or reverse the color scheme of the title and the background, see page 34.

To turn off the title
Press the DISPLAY OFF button.

To memorize the video image in the fine mode

Set the IMAGE 2/4 selector to "2". Density of the picture can be selected with this selector. The video image is memorized at "2" position only in PAGE 1 and 2.



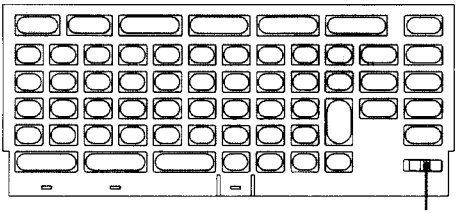


IMAGE 2/4 selector

	Title to be memorized in each PAGE			
	PAGE 1	**PAGE 2**	**PAGE 3**	**PAGE 4**
	• Character title • Video image memory	• Character title • Video image memory	• Character title • Video image memory	• Character title • Video image memory
	• Character title • Fine video image memory	• Character title • Fine video image memory	• Character title	• Character title

To memorize the playback picture of the player as the title

The momentary playback picture is memorized and added to the playback picture as a silhouette.

1 Play back the tape and select the scene to be memorized as the title.

2 Press the desired PAGE button.

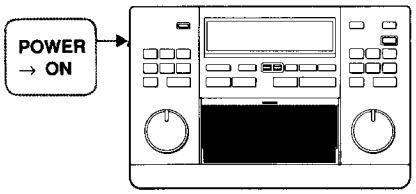
3 Press the IMAGE button.
The IMAGE mark is displayed in the display window.

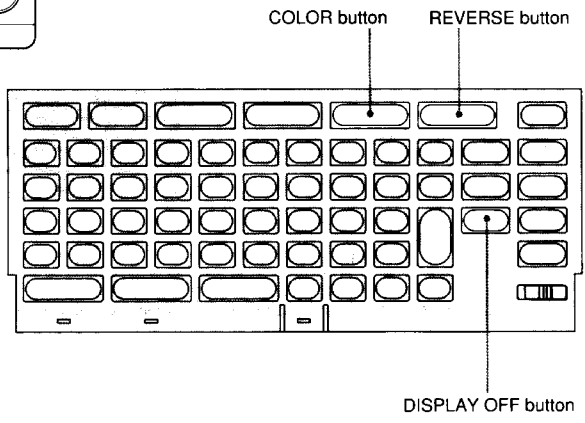
4 Press the MEMORY button to memorize the picture.

Note

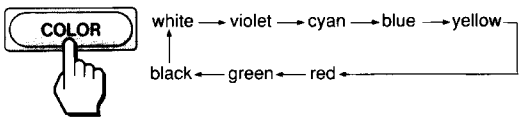
- The image is processed due to the brightness of the scene.
  Select the high contrast scene.
- When the picture is played back in the various speed playback mode or picture search mode, the picture may be disturbed or may not be memorized.

To Select the Color of the Title

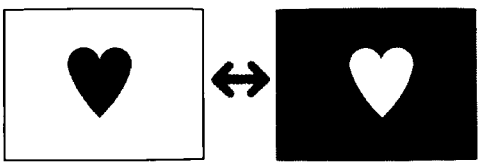




Press the COLOR button.
Each push of the COLOR button sequentially changes the color.

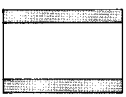


To Reverse the Color Scheme of the Title and the Background



Press the REVERSE button.
To release the reverse mode, press the IMAGE button and then the REVERSE button.

Note
When the picture is wrote fully on the screen, the picture written on the top and bottom portions cannot be memorized.

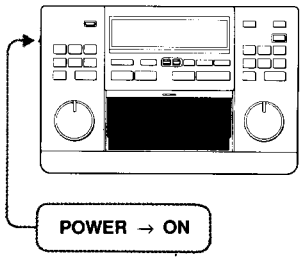


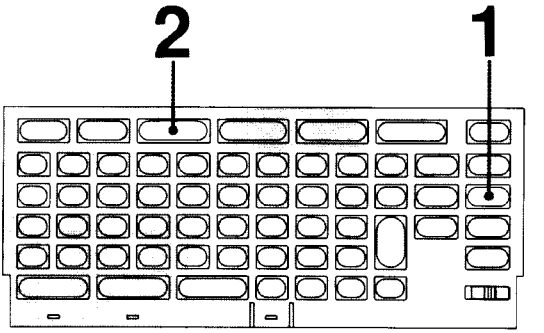
To turn off the title

Press the DISPLAY OFF button.

To Overlay the Character Title and the Video Image Memory

Ex. When you want to overlay the video image memory in the PAGE 2 with the character title.





1 **Press the PAGE 2 button to display the memorized video image.**

2 **Press the CHARACTER button so that the CHARACTER indication is displayed in the display window.**

3 **Type the character.**

To overlay the memorized character title with the video image memory title.

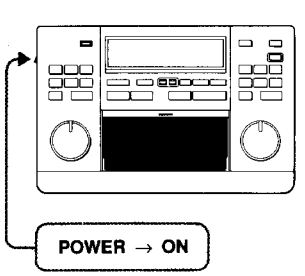
1 Press the appropriate PAGE button to display the memorized character title.

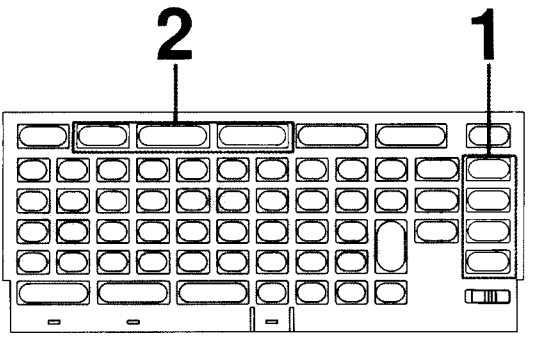
2 Press the IMAGE button.

3 Shoot the telop card with the video camera recorder and press the MEMORY button to memorize it.

To Clear the Memorized Title

The character title and/or image memory title is cleared from one PAGE.





1 **Press the appropriate PAGE button to display the title(s).**

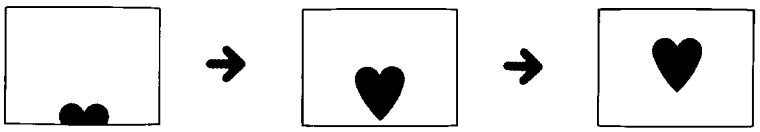
2

Memorized title	Title to be cleared	Button to be pressed
Character title	Character title	CLEAR
Video image memory	Video image memory	CLEAR
Character title and video image memory	Character title	CHARACTER and then CLEAR
Character title and video image memory	Video image memory	IMAGE and then CLEAR
Character title and video image memory	Both	CLEAR

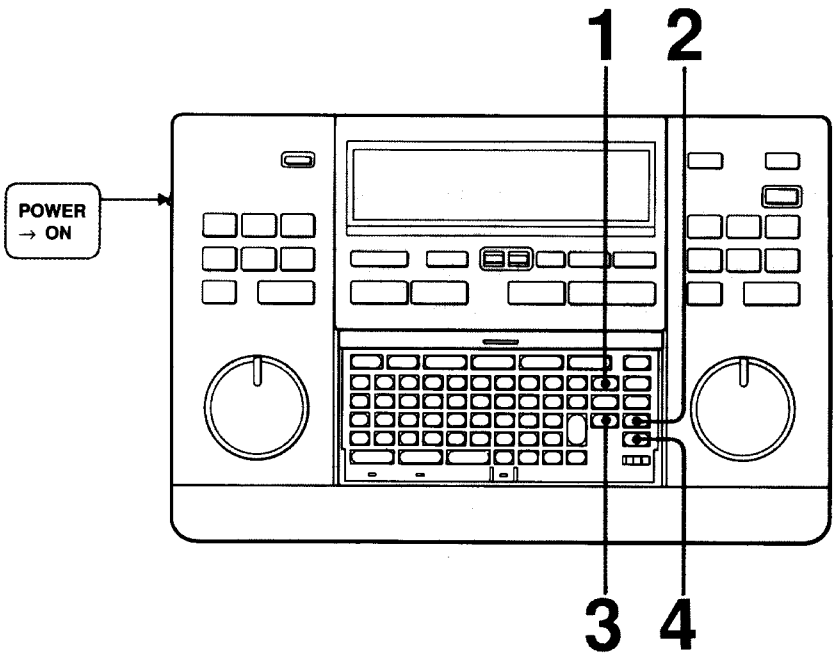
To Display the Title as It Is

Press the appropriate PAGE button.
To turn off the title, press the DISPLAY OFF button.

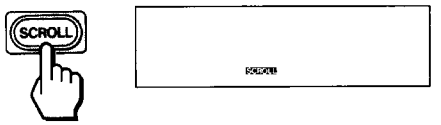
To Scroll the Title from Bottom to Top



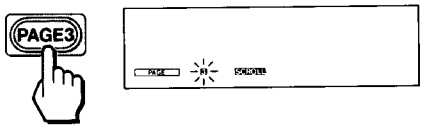
Ex. When you want to scroll the title memorized in PAGE 3.



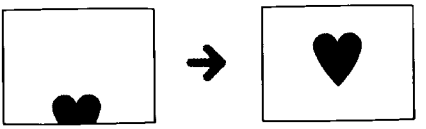
1 **Press the SCROLL button so that the SCROLL indication is displayed in the display window.**



2 **Press the PAGE 3 button.**

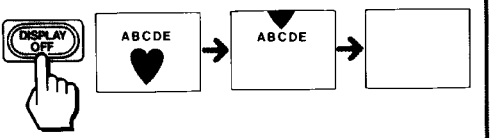


The title will be displayed from bottom to center.



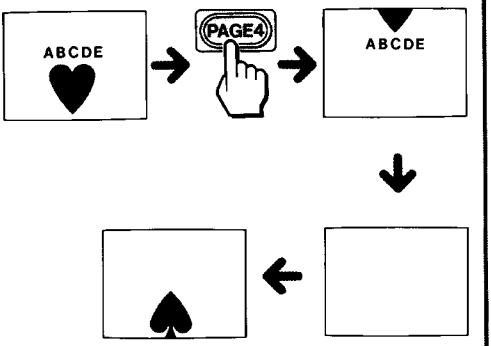
When the character title is memorized with the video image memory, the character title appears after the video image memory stops at center.

3 **To scroll the title from center to top, press the DISPLAY OFF button.**



When the character title is memorized with the video image memory, the character title disappear after the video image memory disappears.

4 **To scroll the title in the PAGE 4 continuously after the title in the PAGE 3 disappears, press the PAGE 4 button when the title in the PAGE 3 stops at center.**

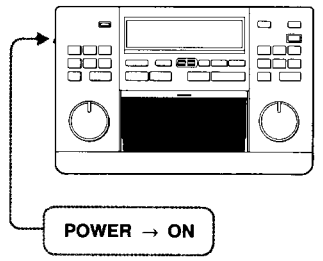


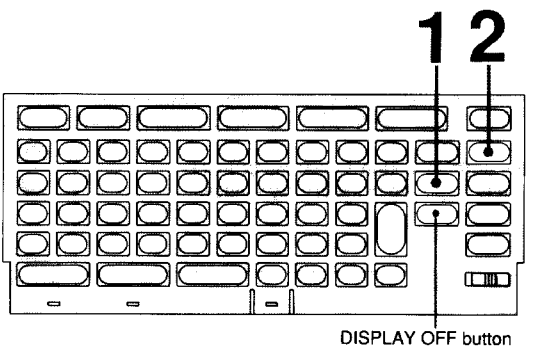
After the title in the PAGE 3 disappears, the title in the PAGE 4 appears from bottom.

The character title cannot be scrolled.

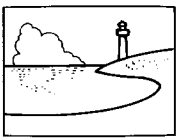
To Color the Background of the Character Title Gray

EX. When you want to color the background of character title in PAGE 1 gray



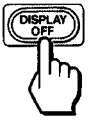


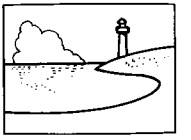
1 **Press the SUPER/TITLE button to display the TITLE indication.**
When this button is pressed again, the TITLE indication disappears and the SUPER indication appears.



2 **Press the PAGE 1 button.**
The background will be colored gray and the character title appears.

To erase the character title
Press the DISPLAY OFF button again.

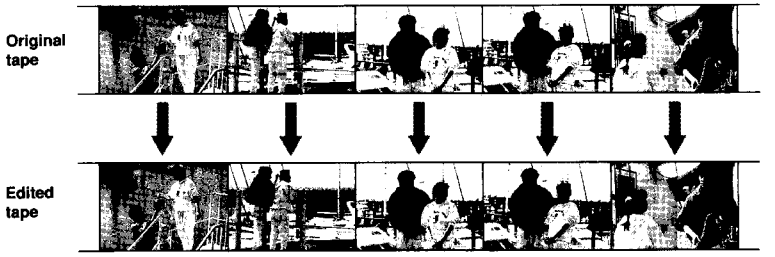




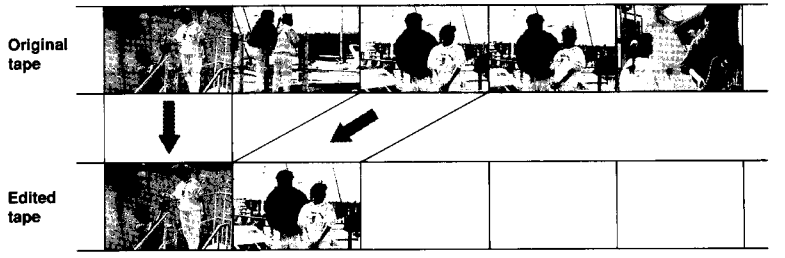
About the Ways of Editing

A tape recorded with the video camera recorder can be edited to a tape that consists of just the desired scenes, sequence and time.
This unit provides the following three ways of editing.

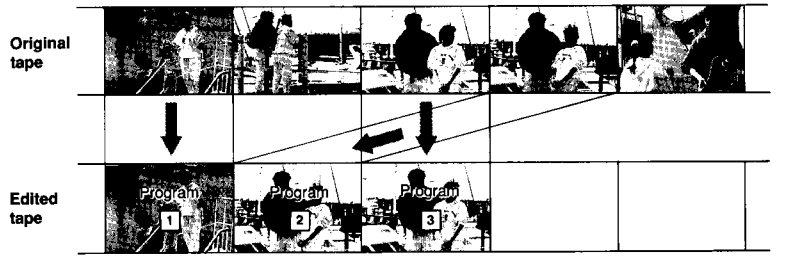
To edit the entire tape contents to another tape—Dubbing



To edit only desired scenes while viewing playback—Manual Assemble Editing



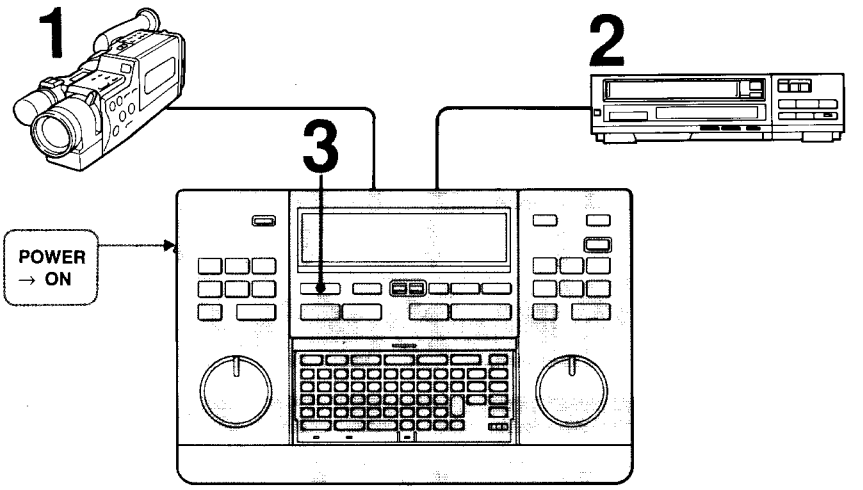
To edit only desired scenes automatically in the desired sequence—Automatic Assemble Editing



For better editing, check the original tape contents carefully and select the scenes to be edited.

This unit does not provides to decide the cut-in and cut-out points with the recorder (insert editing).

To Edit the Entire Tape Contents to Another Tape—Dubbing



1 **Set the player to the stop mode.**

2 **Set the recorder to the stop mode at the recording start point.**

3 **Press the VIDEO EDIT button.**
While dubbing, the VIDEO EDIT and CUT IN indications light.

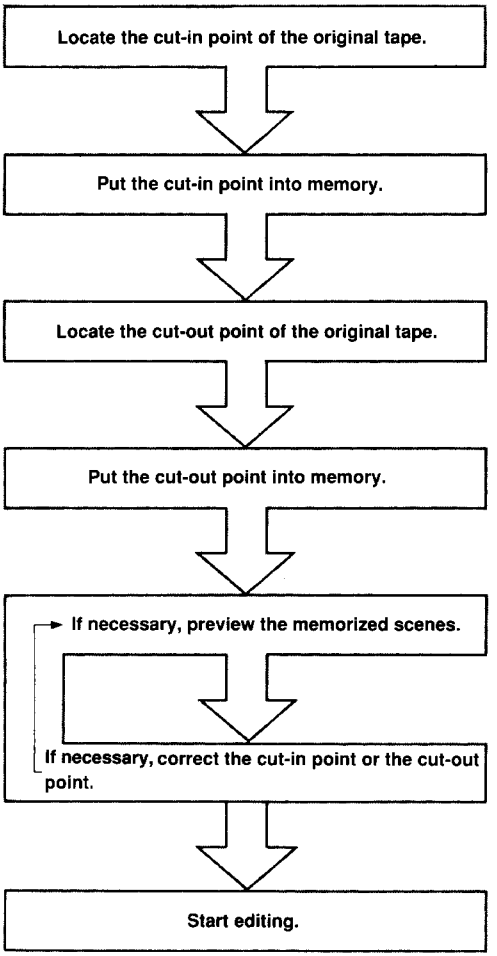
To stop dubbing

Press the VIDEO EDIT button again.

To superimpose a memorized title onto the tape being editing

Press the appropriate PAGE button during editing. To turn off the title, press the DISPLAY OFF button.
(For operations to scroll the title or to color the background gray, see pages 38 and 40.)

To Edit the Tape


Locate the cut-in point of the original tape.
Put the cut-in point into memory.
Locate the cut-out point of the original tape.
Put the cut-out point into memory.
If necessary, preview the memorized scenes.
If necessary, correct the cut-in point or the cut-out point.
Start editing.

Before Editing

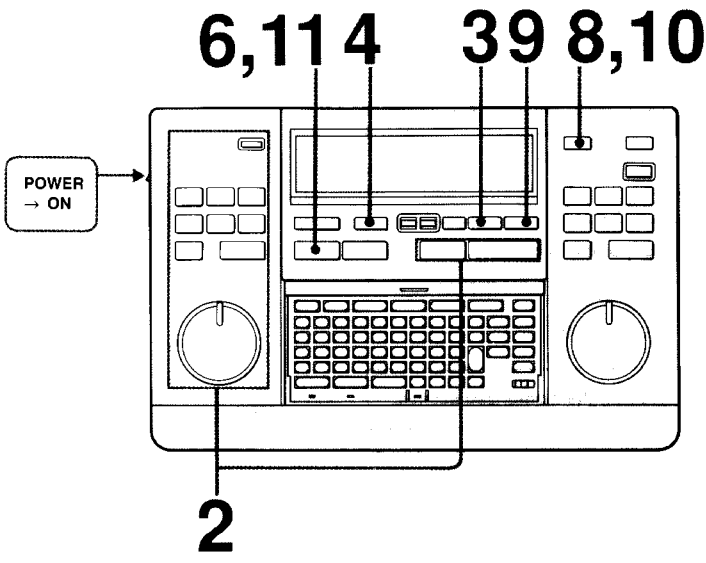
- Check the connections.
- Install the cassette to be played back into the video camera recorder and prepare for playback.
- Install the cassette for recording into the recorder and prepare for recording. Be sure that the tab on the recording cassette is not slid out.
- A cut-in point should be at least 10 counts of the tape counter after the beginning of the tape, and the cut-out point should be at least 3 counts before the end of the tape. With less space, the starting point may be missed or automatic assemble editing may not operate correctly.
- Please refer to the instruction manual of the recorder and the player.

To Record the Beginning of the Original Tape at the Exact Starting Point—Timing adjust

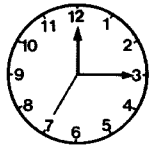
In automatic assemble editing, playback is started from 10 counts before the cut-in point and recording is started from the cut-in point. However, recording may start late with some VCRs, missing the starting point.

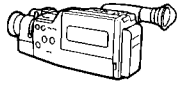
Use the timing adjust function to adjust the time lag of the recorder and to start the playback and recording simultaneously.

Timing adjust operation

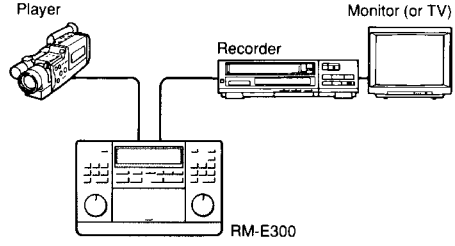


1 **Record a clock with a second hand for a few seconds using the video camera recorder.**

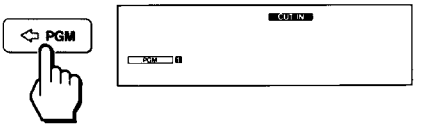




2 **Install the cassette into the player and locate the cut-in and cut-out points.** (See the "Automatic assemble editing" on page 52).



3 **Press the ← PGM button twice so that the CUT IN indication of the PGM [1] is displayed in the display window.**

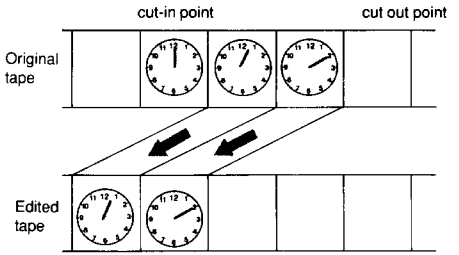


4 **Press the GO TO button.** The tape runs and stops at the cut-in point in the playback pause mode

5 **View the position of the second hand on the monitor.** This position is the cut-in point.

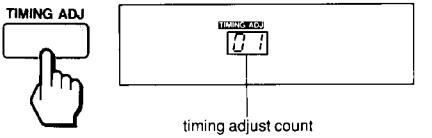
6 **Set the recorder in the recording pause mode and press the PGM EDIT button to start automatic assemble editing.**

7 **Play back the edited tape if the recording of the second hand is started at the exact cut-in point.**



The above illustration shows that the recording starts one second after playback.

8 **Press the TIMING ADJ button.**



9 **Press the PGM → button to set time lag.**

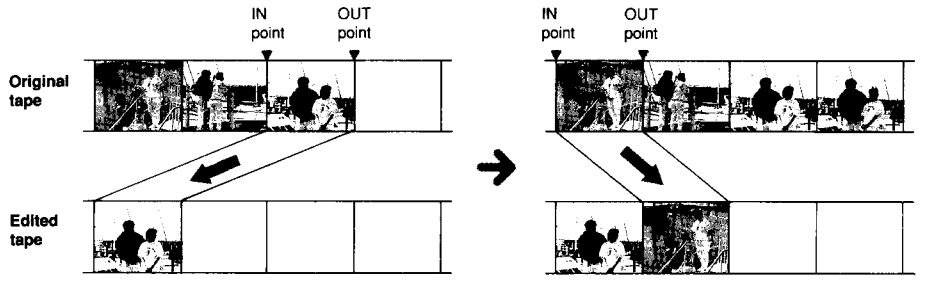
Time lag (sec.)	0,1	0,2	0,3	1
Timing adjust count	1	2	3	10

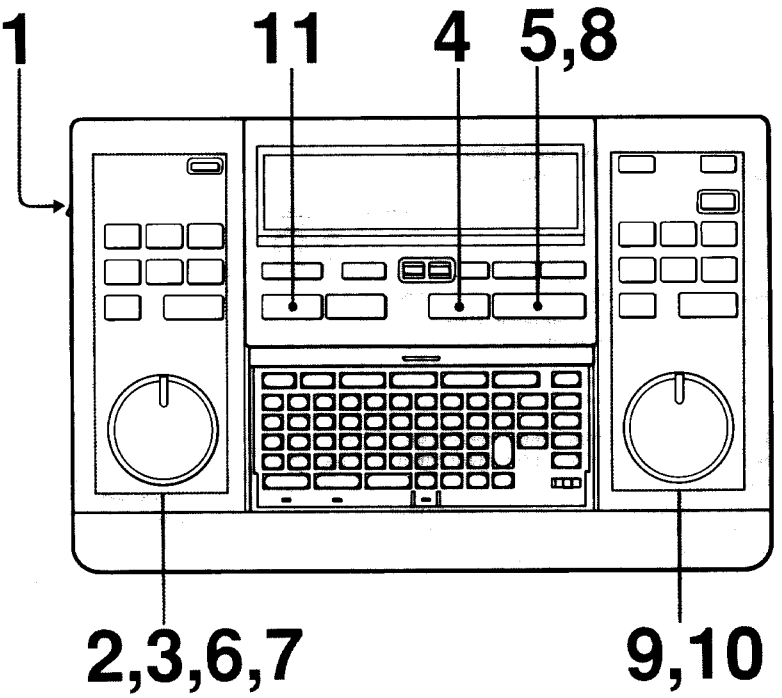
Each push of this button advances the timing adjust count. To reverse, press the ← PGM button.

10 **Press the TIMING ADJ button.**
The setting of the timing adjust has been completed.

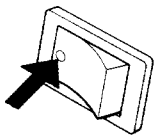
11 **Set the recorder in the recording pause mode and press the PGM EDIT button to start editing.**
Play back the tape and view the starting point.

12 **Repeat steps 8 to 11 to set the timing adjust time so that the recording is started at the exact starting point.**

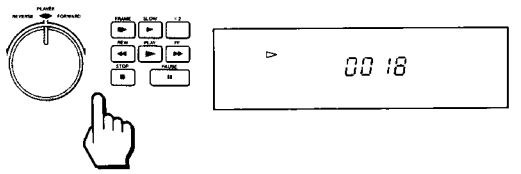

IN point
OUT point
IN point
OUT point
Original tape
Edited tape


1
11
4
5,8
2,3,6,7
9,10

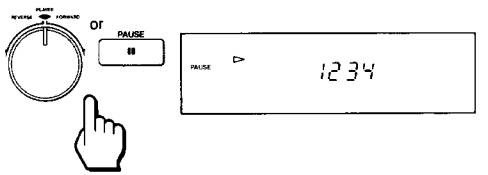
1 **Turn on the power on this unit.**



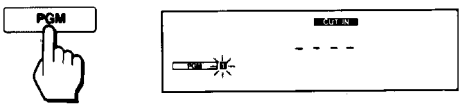
2 **Locate the playback start** (cut-in) **point with the tape transport button and the shuttle dial for the player.**



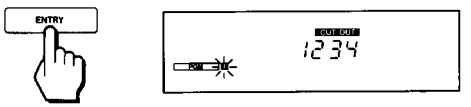
3 **Set the player to the playback pause mode.**



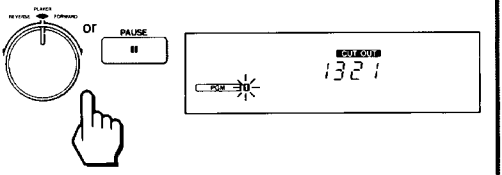
4 **Press the PGM button.**
The count number of the previous memorized cut-in point will be displayed for approximately 3 seconds. When the cut-in point is not memorized, the "----" will be displayed for approximately 3 seconds.



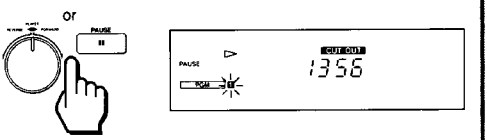
5 **Press the ENTRY button.**
The cut-in point of the PGM 1 has been memorized.



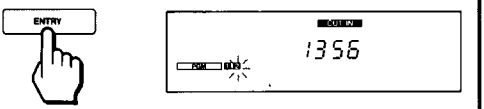
6 **Release the playback pause mode with the shuttle dial or the II button to locate the cut-out point.**



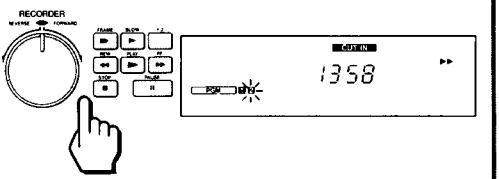
7 **Set the player to the playback pause mode at the cut-out point.**



8 **Press the ENTRY button.**
The cut-out point of PGM 1 has been memorized.



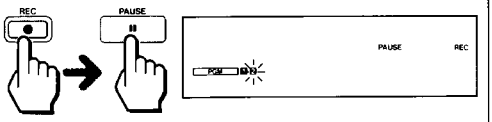
9 **Locate the recording start point with the tape transport button and the shuttle dial for the recorder.**



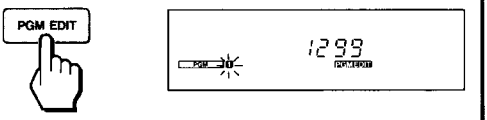
Continued

To Edit only Desired Scenes while Viewing Playback —Manual Assemble Editing

10 **First press the ● REC button, and then press the ❚❚ button to set the recorder in the recording pause mode at the cut-out point.**



11 **Press the PGM EDIT button.**
The editing will be executed.



Repeat steps 2 to 11 to edit the desired scenes.

To stop the editing

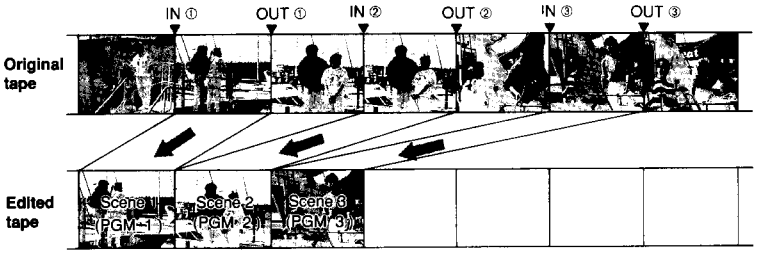
Press the ■ button for the recorder/player or the PGM EDIT button.

Notes

- When the pause mode is kept on for several minutes (depending on the VCR being used), the pause mode will be automatically released and the VCR will be set to stop or recording mode.
- When recording is resumed after the tape has been stopped with the ■ button, it is possible that a "rainbow effect" or a distorted picture will be seen in between the recordings when they are played back.

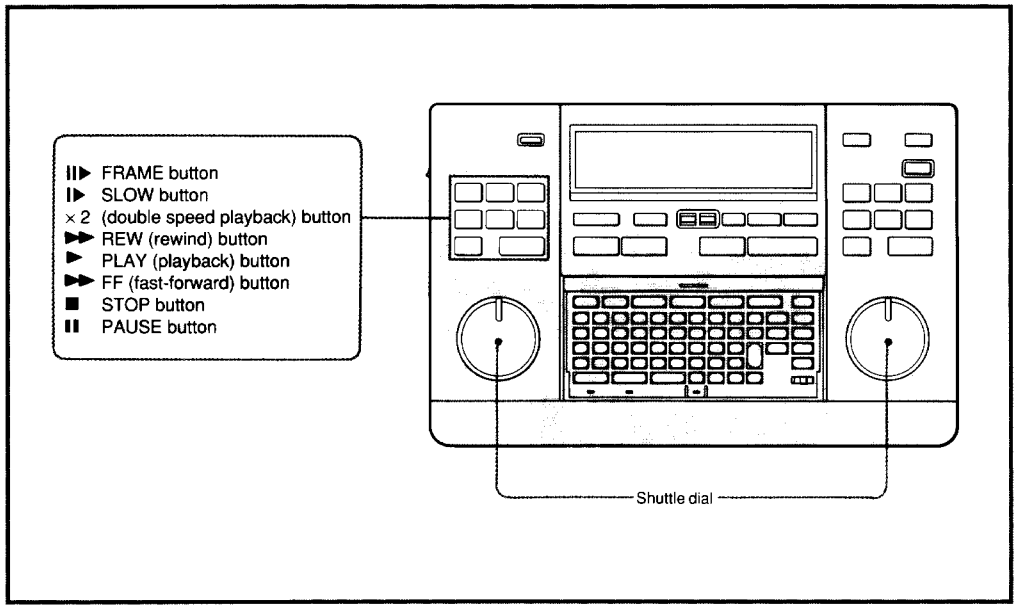
To Edit only Desired Scenes Automatically in the Desired Sequence —Automatic Assemble Editing

For automatic assemble editing, preset all the cut-in and cut-out points of the scenes to be edited. Up to 8 scenes can be preset in this unit.
In automatic assemble editing mode, the required scenes on a tape can be edited automatically to another tape in the desired sequence simply by pressing the PGM EDIT button.



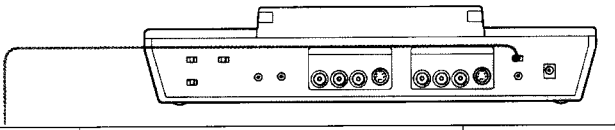
After selecting the scenes and pressing the PGM EDIT button, the automatic assemble editing completes the editing. So, this unit is equipped with a function to preview the memorized scenes or check the cut-in/cut-out points. (For details on previewing, see page 55.)

Buttons and Shuttle Dial to Locate the Cut-in and Cut-out Point



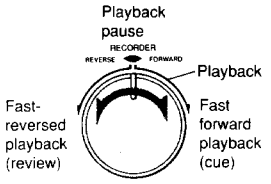
How to use the shuttle dial

Shuttle dial for the player



SHUTTLE A B	When the jog/shuttle remote control unit **cannot be used** for the player → Set to A	Playback pause PLAYER REVERSE FORWARD Playback Fast-reversed playback (review) Fast-forward playback (cue)
	When the jog/shuttle remote control unit **can be used** for the player → Set to B	Playback pause PLAYER REVERSE FORWARD • Reversed playback • Fast reversed playback (review) • 1/5 playback • Playback • x 2 forward playback • Fast forward playback (cue)

Shuttle dial for the recorder



Note

To avoid mistakes, never operate the shuttle dial quickly. The VCR may not function according to the operations indicated on the shuttle dial.

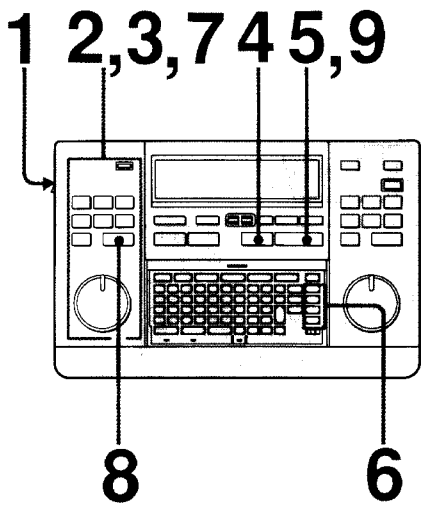
When the recorder is not connected to the CONTROL L connector

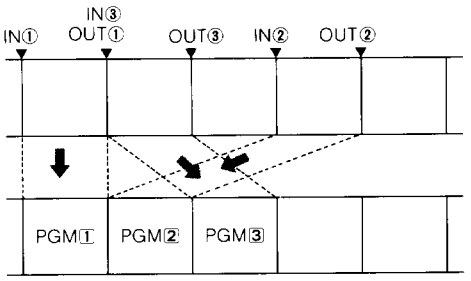
The shuttle dial may not function correctly.

- When the recorder is not set to the pause mode with the shuttle dial, (press the ▮▮ button).
- When the locked picture search is operated on the Remote Commander on the recorder.
- When the recorder and the player response to the Remote Commander is slow.

To Edit only Desired Scenes Automatically in the Desired Sequence —Automatic Assemble Editing

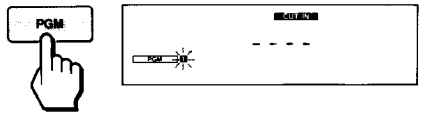
To Locate the Cut-in and Cut-out points



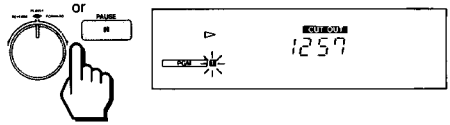


1 **Turn on the power on this unit.**

4 **Press the PGM button.**
The count number of the previous memorized cut-in point will be displayed approximately for 3 seconds. When the cut-in point is not memorized, the "----" will be displayed approximately for 3 seconds.



7 **Release the pause mode of the player with the shuttle dial or ▮▮ button for the player to locate the cut-out point (OUT ①).**

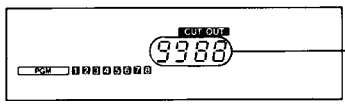


To memorize other scenes

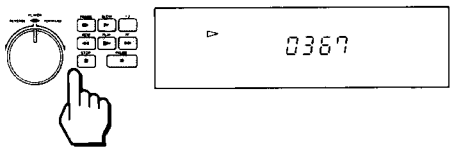
Repeat steps 3 to 9. Up to 8 scenes can be preset.

After memorizing the 8 scenes

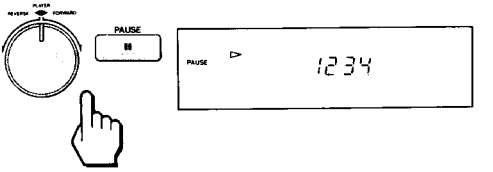
The indications are displayed as follows.



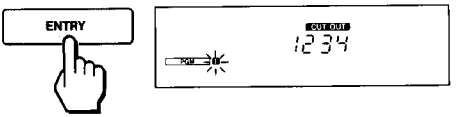
2 **Locate the cut-in point (IN ①) of the original tape with the tape transport buttons and the shuttle dial.**



3 **Set the player to the playback pause mode at the cut-in point**

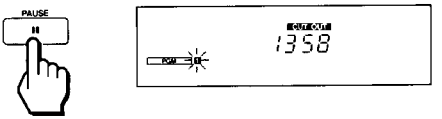


5 **Press the ENTRY button.**
The cut-in point of the scene 1 has been memorized as PGM 1 .

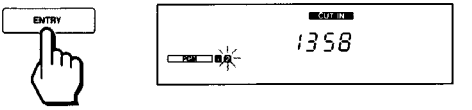


6 **To superimpose the memorized title when the editing is executed, press the appropriate PAGE button.**

8 **Press the ❚❚ button to set the player to the playback pause mode at the cut-out point.**



9 **Press the ENTRY button.**
The cut-out point is memorized.



Follow page 55 or 58.

To stop memorization of the scene

Press the PGM button.

To scroll the title or color the background gray

See pages 38 and 40.

Notes

- If the scene from the cut-in point to the cut-out point is too short, the scene will be ended before the scroll is completed.
- When the scrolling of the title from center to top is set at the cut-out point, the scrolling is started at the cut-out point. Therefore the actual cut-out point will be set after the title disappears.

About the Time Lag in Automatic Assemble Editing

The recorder is controlled by the tape transport signal of the player. However the cut-in and cut-out points of the recorder may not coincide with those of the player for the following reasons.

— The editing point is decided by the count number (not the frame).
— A time lag is caused between the playback picture and the count number of the player.
— The recorder starts recording after the decided cut-in point.

To reduce the time lag between the playback picture and the count number of the player

- Locate the cut-in and cut-out points with the picture search (cue or review).
- Reset the counter with the COUNTER RESET button from the beginning of the tape. When tape editing of the same scenes is to be repeated, reset the counter at the same point before editing tape.

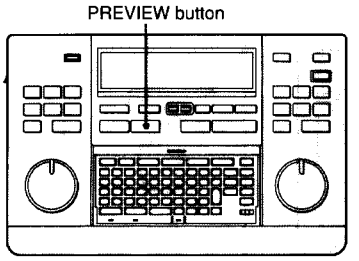
About the time lag of the recorder caused by a rise time

Some VCRs may take a time to start recording from the recording pause mode. Therefore the beginning of the edited tape may not be recorded. To avoid this, this unit is equipped with a timing adjust function (page 44).

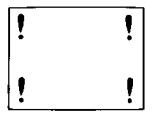
For Editing Rehearsal—Preview

The picture to be recorded is monitored before actual editing. In the preview mode, only playback is executed.

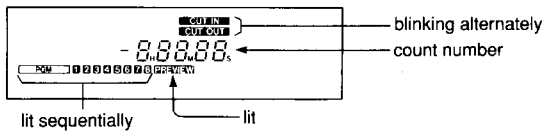
Press the PREVIEW button.



On the monitor (or TV)



The ! marks appear at the corners of the recorded portion.



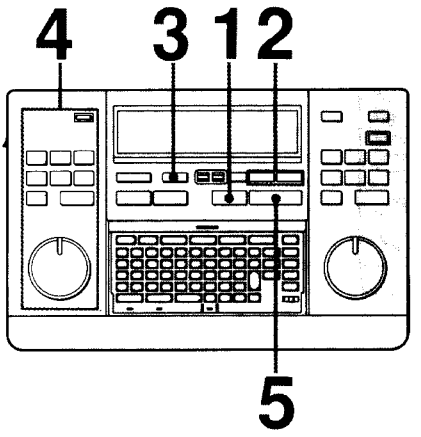
To stop the previewing that is in operation

Press the PREVIEW button again.

To execute the editing	➡ See page 58.
To change the editing point	➡ See page 56.

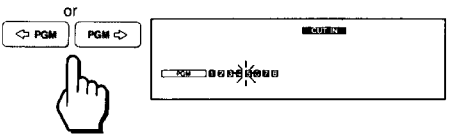
To Change the Editing Point

Ex. 8 scenes are memorized.
When you want to change the cut-in point of the scene 5 (PGM 5).



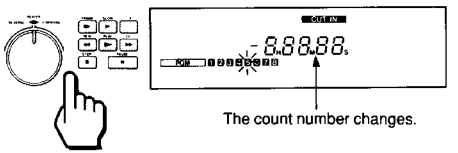
1 **Press the PGM button.**

2 **Press the ← PGM button or the PGM → button so that PGM 5 blinks and CUT IN lights.**

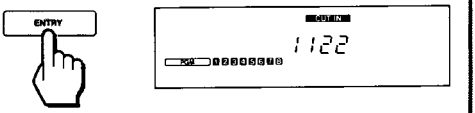


3 **Press the GO TO button.**
The tape stops at the cut-in point of scene 5 and the player is set in the playback pause mode.

4 **Locate the new cut-in point with the tape transport buttons and the shuttle dial.**



5 **Press the ENTRY button at the new cut-in point to be memorized.**



To change the cut-out point

1 After step 5, press the PGM → button so that the CUT OUT indication of PGM 5 lights.

2 Press the GO TO button.

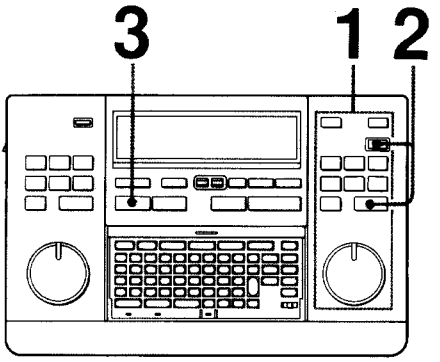
3 Locate the new cut-out point.

4 Press the ENTRY button at the new cut-out point to be memorized.

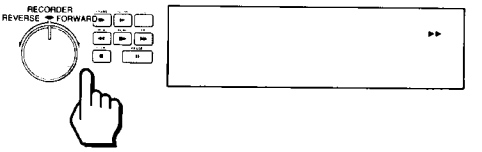
When the following cut-in or cut-out point has not been set
After changing the cut-in or cut-out point, the following cut-in or cut-out point can be set continuously.

Note
The editing point can be changed once after pressing the ← PGM or PGM → button. To change again, press the ← PGM or PGM → button again.

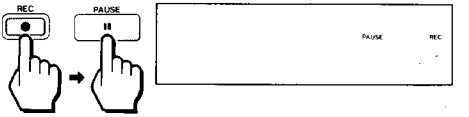
To Execute Automatic Assemble Editing



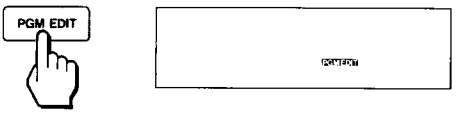
1 **Locate the point where you want to start a new recording with the tape transport buttons or the shuttle dial.**



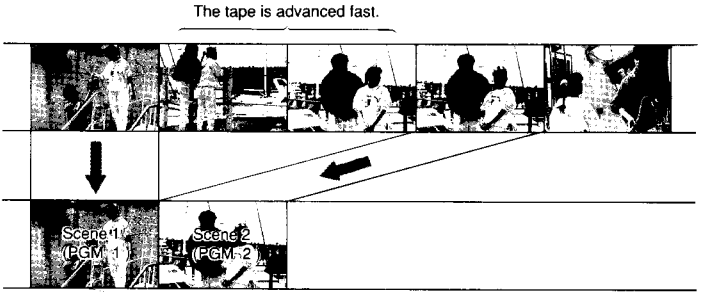
2 **First press the ● REC button, and then press the ❚❚ button to set the recorder in the recording pause mode.**



3 **Press the PGM EDIT button.**
Automatic assemble editing is executed.



On the monitor (or TV)



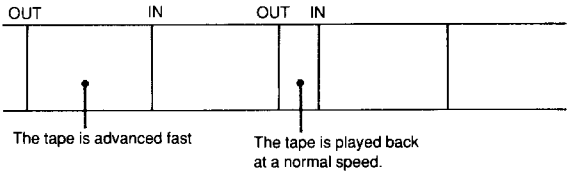
To superimpose the title during editing

Press the appropriate PAGE button at the desired point.

To turn off the title

Press the DISPLAY OFF button at the desired point.

When the cut-out point of the previous scene is close to the cut-in point of the next scene
The picture between the cut-out and cut-in points is played back at a normal speed.



To Edit only Desired Scenes Automatically in the Desired Sequence —Automatic Assemble Editing

To stop automatic assemble editing

Press the PGM EDIT button.

To start recording smoothly

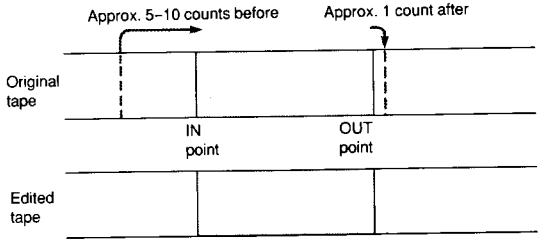
Set the recorder to the playback pause mode and then press the ● REC button.

Notes

- When the time between the cut-out point of the previous scene and the cut-in point of the next scene is more than several minutes (depending on the VCR being used) with the search function, automatic assemble editing is impossible.
- After setting the programs
  — Never press the COUNTER RESET button on the player.
  — Never eject the cassette from the recorder.
  Any of these actions will cause a missetting of the cut-in and cut-out points.

To avoid missing the cut-in and cut-out points

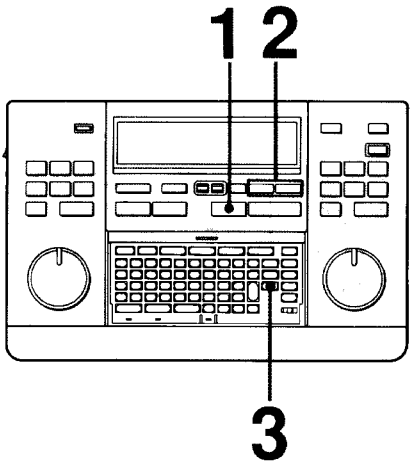
In automatic assemble editing, the player starts playing back approximately 5 to 10 counts before the cut-in point and remains in playback approximately 1 count after the cut-out point. The recorder records the picture between the cut-in and cut-out points.



To Erase the Program

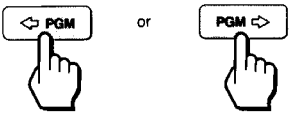
To erase only the title from the program

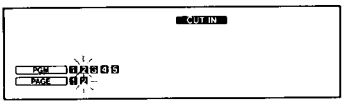
Ex. When you want to erase the title of the PAGE 2 superimposed onto the scene 2 (PGM 2).



1 **Press the PGM button.**

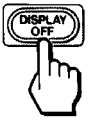
2 **Press the ← PGM or PGM → button to display the PGM 2 and CUT IN or CUT OUT indications.**





The title will appear

3 **Press the DISPLAY OFF button.**
PGM [2] lights.



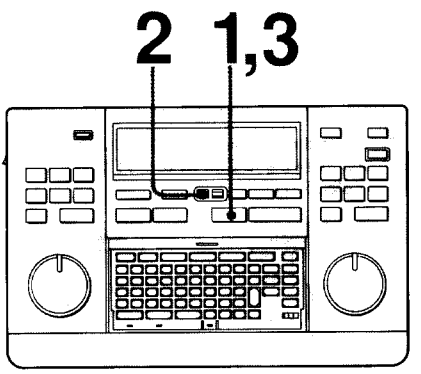
The title will disappear.

To exchange titles

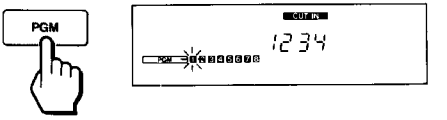
1 Press the ← PGM or PGM → button to display the desired program number and CUT IN or CUT OUT indications.

2 Press another PAGE button.
The new title will be superimposed.

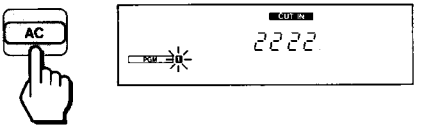
To erase the memory of all the programs



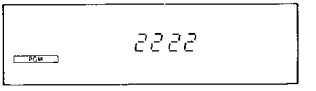
1 **Press the PGM button.**



2 **Press the AC button.**

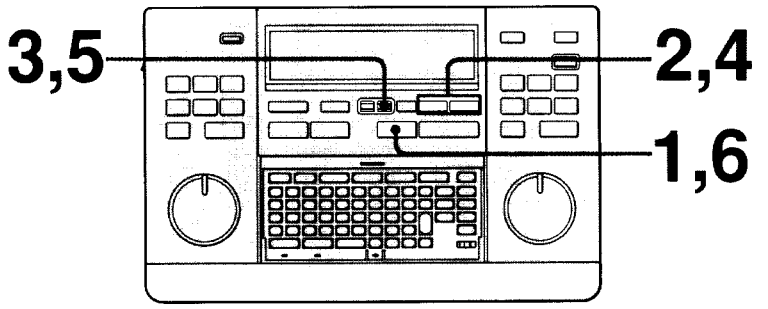


3 **Press the PGM button.**

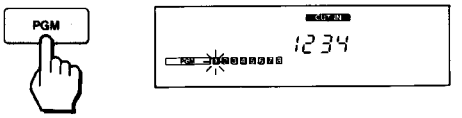


To erase the memory of a certain program

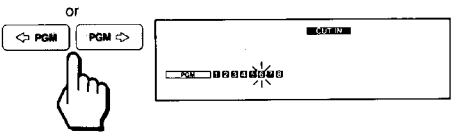
Ex. When you want to erase scene 6 (PGM 6).



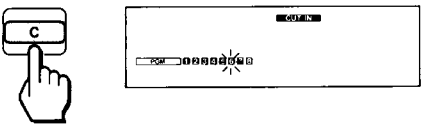
1 **Press the PGM button.**



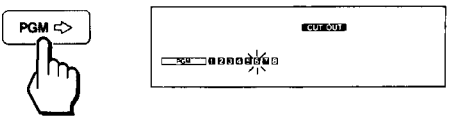
2 **Press the ← PGM button and PGM → button so that PGM 6 blinks.**



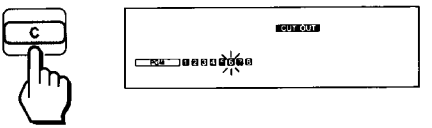
3 **Press the C button to erase the cut-in point of the scene 6.**



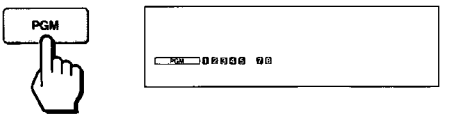
4 **Press the PGM → button so that PGM 6 blinks.**

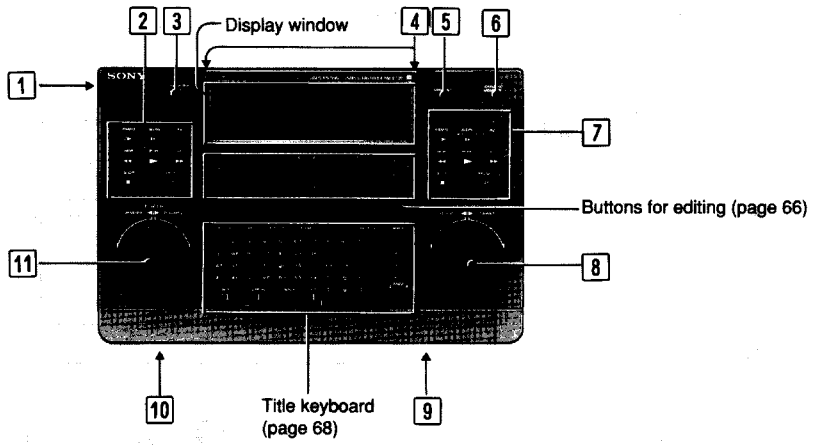


5 **Press the C button to erase the cut-out point of the scene 6.**

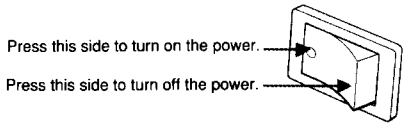


6 **Press the PGM button.**





1 POWER switch
Press the dot mark to turn on the power. Press the opposite side to turn off the power.



2 Tape transport buttons (for the player)
II▶ FRAME button*
I▶ SLOW (1/5 speed) button*
× 2 (double speed) button*
◀◀ REW (rewind) button
▶ PLAY button
▶▶ FF (fast-forward) button
■ STOP button
II PAUSE button
The indications appear at the left side in the display window.
* These buttons function when the VCR to be used has the same functions.

3 COUNTER RESET button (for the player)
Press to reset the counter of the player to "0000" or "0H00M00S".

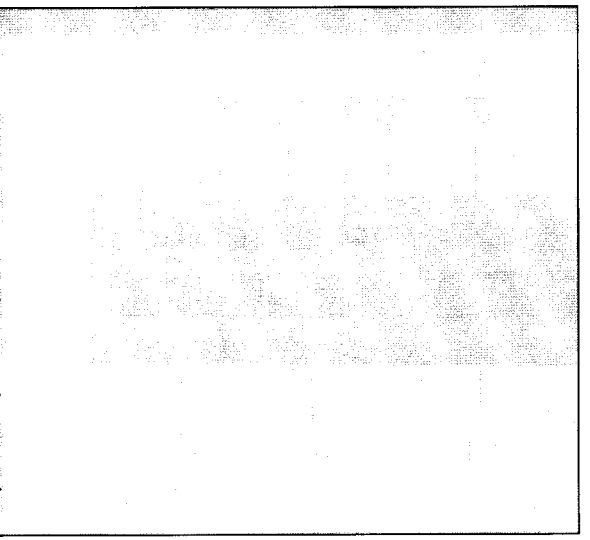
4 Infrared beam emitter
After the signal of another remote control unit (infrared control) is memorized, the control signals are transmitted from here.
The control signal of the Sony Remote Commander is also transmitted from here.

5 TIMING ADJ button
Press to shift the timing of transmission of the recording start control signal from this unit. First press this button and then ← PGM or PGM →.

6 COMMAND MEMORY button
When you use other manufacturers' VCR for the recorder, press to memorize the infrared control signal of the remote control unit in the RM-E300.

7 Tape transport buttons (for the recorder)
The functions except the ● **REC** (recording) button are the same as those of the tape transport buttons for the player.
Even if the RECORD and PLAY buttons of the VCR to be used must be pressed for recording, press only the ● REC button on this unit.
When the recorder is connected to the CONTROL L connector, the indication remains displayed. When the recorder is connected to the CONTROL S connector or controlled by the memorized infrared control signal, the indication is displayed only when the command signal is transmitted by pressing the button.

8 Shuttle dial (for the recorder)
Turn to detect the point where the recording should begin.
The desired playback speed is selected by the turning angle of the dial. Turn it clockwise for forward playback, or counterclockwise for reverse playback. This dial may not function with some VCRs.

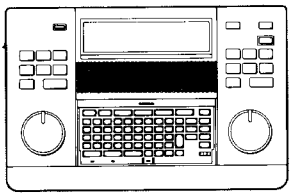


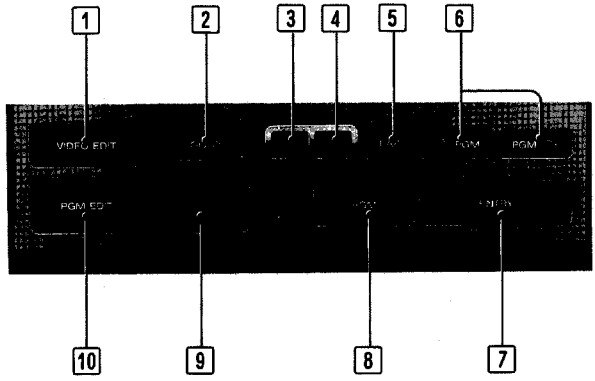
[9] **Infrared beam detector**
When the infrared control signal of other manufacturers' remote control unit is memorized, put another remote control unit opposite the detector.

[10] **Lithium battery compartment (bottom)**
Insert the lithium batteries to keep the data for editing, title, and the control signal of other manufacturers' remote control unit in memory.

[11] **Shuttle dial (for the player)**
Turn to detect the point where the playback should begin. The function is the same as that of the shuttle dial for the recorder [8].

Buttons for editing





1 VIDEO EDIT button
When the player and the recorder are set to the stop mode, press to start playback of the player and recording of the recorder simultaneously.
When you edit the tape using this button, the TIMING ADJ button does not function.

2 GO TO button
Press to check the picture of the cut-in or cut-out point. First press the PGM button, select the cut-in or cut-out point with the ← PGM/PGM → button and then press the GO TO button. The tape is in the playback pause mode at the cut-in or cut-out point.
However, when this button is pressed twice, the player is set to the stop mode.

3 AC button
Press to clear all the memorized editing data for the PGM 1 to PGM 8. When this button is pressed while the MEMORY indication is displayed, all the control signals memorized for other manufacturers' remote control unit will be cleared.

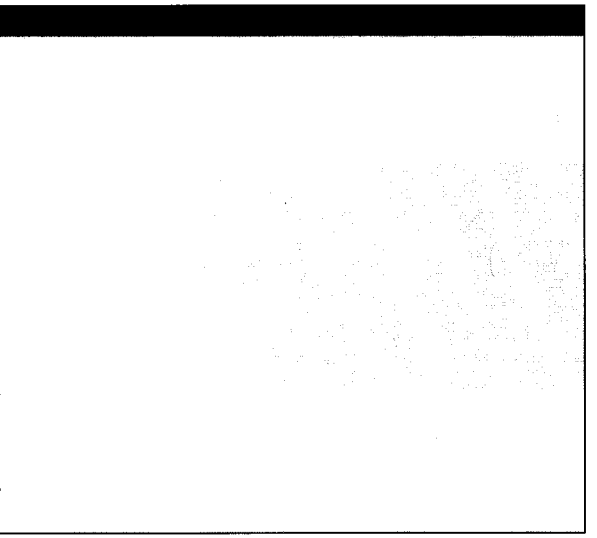
4 C button
Press to clear the editing data of one scene at every cut-in or cut-out point. When the title is memorized, if both cut-in and cut-out points are cleared, the title is also cleared from the scenes.

5 LAP button
Press to display the approximate total time of all the memorized scenes. This button is effective only when the player is equipped with a counter with "H,M,S" indications.

6 ← PGM/PGM →
Press to display the cut-in or cut-out point of a scene. Press ← PGM button to rewind the tape and PGM → to advance the tape. After the count number of the cut-in or cut-out point appears for about 3 seconds, the current count number appears.
Also press to adjust the timing adjust count during the timing adjustment operation.

7 ENTRY button
Press to memorize the counter number of the cut-in and cut-out points.

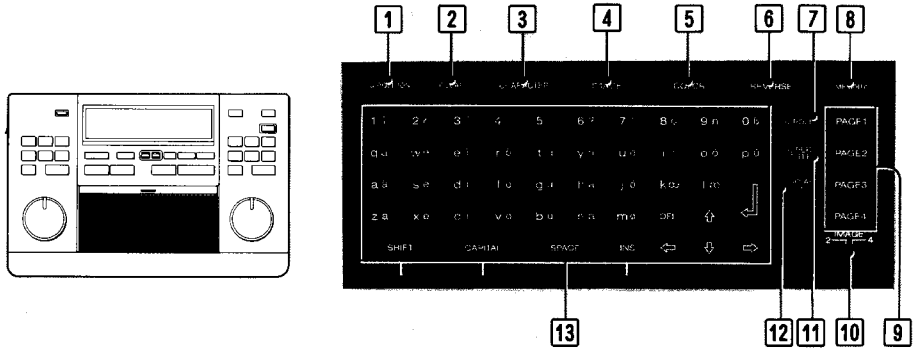
8 PGM button
Press to have the cut-in or cut-out point of a scene memorized or changed. The scene number (PGM 1) is displayed in the display window.
To resume the condition before the button is pressed, press this again.



9 PREVIEW button
Press to preview the memorized scenes. The scenes will be played back in sequence. The ! mark is displayed on the picture from the cut-in point to cut-out point.
If this button is pressed during the preview operation, the previewing will stop.

10 PGM EDIT button
After presetting the scenes to be edited, press to execute automatic assemble editing.
If this button is pressed during automatic assemble editing, automatic assemble editing will stop.

Title keyboard



1 C (character) POSITION button
When the CHARACTER indication is displayed in the display window, press to adjust the position of the character title on the monitor. Set the position with the cursor control buttons. To release this function, press this again.

2 CLEAR button
- When the title is displayed, the displayed title is cleared.
- When CHARACTER is displayed in the display window, the character title is cleared.
- When IMAGE is displayed in the display window, the video image memory is cleared.

3 CHARACTER button
When the page number is blinking by pressing one of the PAGE 1 to 4 buttons, press to write the character title. The cursor blinks and the CHARACTER indication lights.
When this button is pressed again, the cursor and the CHARACTER indication disappear and the character title is displayed. In this condition, the character title cannot be written.

4 IMAGE button
When the page number blinks after pressing one of the PAGE 1 to 4 buttons, press to memorize the video image from the video camera recorder. The IMAGE indication will be displayed in the display window. When this button is pressed again, the video image cannot be memorized and displayed as the title.

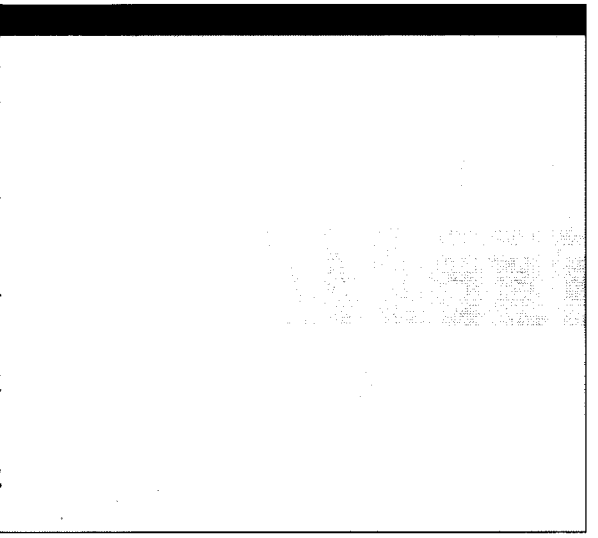
5 COLOR button
Press to choose the title color. First press the CHARACTER button or the IMAGE button so that the CHARACTER or IMAGE indication is displayed in the displayed window. Each push of this button changes the color sequentially. The color can be selected from 8 colors.

6 REVERSE button
Press to reverse the video image memory and background when the IMAGE indication is displayed in the display window.

7 SCROLL button
When the SCROLL indication is displayed in the display window, press one of the PAGE 1 to 4 buttons. The video image memory is scrolled from bottom to center. When you press the DISPLAY OFF button, the video image memory is scrolled from center to top. The character title cannot be scrolled.
To release the scroll mode, press this again.

8 MEMORY button
When the IMAGE indication is displayed in the display window, press to memorize the video image from the video camera recorder.

9 PAGE 1,2,3 and 4 buttons
Press to display the title. The page number blinks in the display window. Four titles can be memorized.



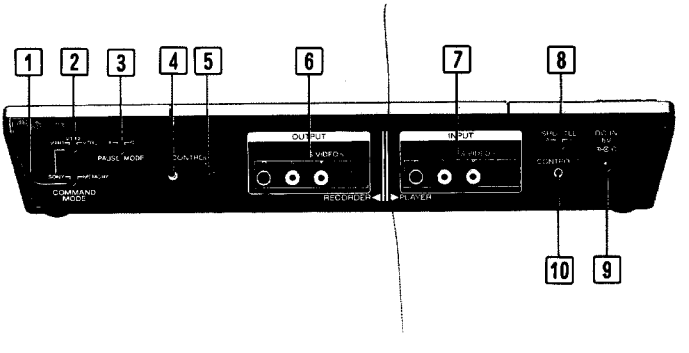
[10] IMAGE 2/4 selector
Selects the density of the picture.
Set to the 2 position to get the fine video image memory.
When this is set to 2, the video image can be memorized only in the PAGE 1 and 2 buttons.

[11] SUPER/TITLE select button
When the SUPER indication is displayed in the display window, the title will be superimposed onto the picture.
When the TITLE indication is displayed in the display window, the background is colored gray and only the title is displayed.

[12] DISPLAY OFF button
Press to go off the title on the TV screen.
When the SCROLL indication is displayed in the display window, the video image memory is scrolled from center to top.

[13] Typing keyboard
For details on use, see "To create the character title" on page 24.

Rear panel



1 SONY/MEMORY select switch

SONY	A Sony product is used for the recorder.
MEMORY	Other product is used for the recorder.

2 COMMAND MODE (remote control mode) selector
When a Sony product is used for the recorder, set this selector according to the COMMAND MODE selector on the VCR.

3 PAUSE MODE selecter
To release the recording pause mode, set this selector according to the button on the VCR to be used.
A : To release with the ❚❚ PAUSE button.
B : To release with the ▶ PLAY button.
C : To release with the ● REC button.
When a Sony product is used for the recorder, set this to "**A**".

4 CONTROL L connector (stereo mini-minijack)
Connect to the CONTROL L connector on the recorder.

5 CONTROL S connector (minijack)
Connect to the CONTROL S connector on the recorder. When the CONTROL L and CONTROL S connectors are equipped with the recorder, use the CONTROL L connector.

6 RECORDER OUTPUT connectors
R and L jacks (phono type): for audio connection.
V jack (phono type): for video connection
S connector (4-pin mini-DIN):
for S video connection when the S VIDEO INPUT connector is equipped with the recorder.

7 PLAYER INPUT connector
R and L jacks (phono type): for audio connection.
V jack (phono type): for video connection.
S connector (4-pin mini-DIN):
for S video connection when the S VIDEO OUTPUT connector is equipped with the player.

> The signal input to the S VIDEO INPUT connector is output from only the S VIDEO OUTPUT connector and the signal input to the phono type input jacks is output from only the phono type output jacks. Connect the recorder and the player to each S connector.

8 SHUTTLE select switch

A	When the shuttle dial is not equipped with the player.
B	When the shuttle dial is equipped with the player, the playback speed is adjustable with the shuttle dial on this unit.

9 DC IN 6 V jack
Connect the supplied AC-D4L AC power adaptor.

10 CONTROL L connector (stereo mini-minijack)
Connect to the CONTROL L connector on the player.

Caution Indications

Indication in display window	Cause
CUT IN is blinking.	The count number of the cut-in point is larger than that of the cut-out point.
CUT OUT is blinking.	The count number of the cut-out point is smaller than that of the cut-in point.
PGM is blinking.	The cut-in or cut-out point is being reset at a point set already.
HMS of the counter is blinking.	After a program is created with a player equipped with a number counter, a program is being created with a player equipped with a time counter.
IMAGE is blinking.	When the IMAGE 2/4 selector is set to 2, the video image memory is being memorizing in PAGE 3 or 4.

Specifications

Video input	Phono jack (1) 1 Vp-p,75 ohms, unbalanced, sync negative
S video input	4-pin mini-DIN (1) Luminance signal: 1 Vp-p, 75 ohms, unbalanced, sync negative Chrominance signal: 0.286 Vp-p (NTSC) or 0.300 Vp-p (PAL), 75 ohms, unbalanced
Video output	Phono jack (1) 1 Vp-p,75 ohms, unbalanced, sync negative
S video output	4-pin mini-DIN (1) Luminance signal: 1 Vp-p, 75 ohms, unbalanced, sync negative Chrominance signal: 0.286 Vp-p (NTSC) or 0.300 Vp-p (PAL), 75 ohms, unbalanced
Audio input	Phono jacks (2)
Audio output	Phono jacks (2)

CONTROL L connector for the player
Stereo mini-minijack (1)

CONTROL L connector for the recorder
Stereo mini-minijack (1)

CONTROL S connector for the recorder
Minijack (1)

General

Power requirement 6 V DC IN

Power consumption 5 W

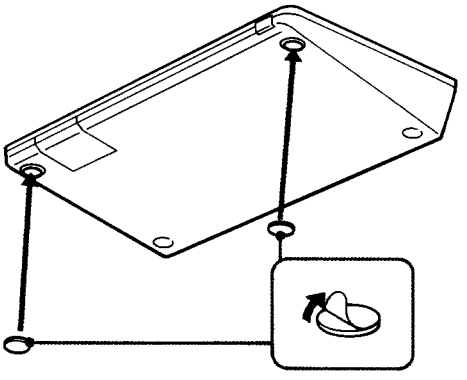
Dimensions	Approx. 355 × 80 × 230 mm (w/h/d) (14 × 3 1/4 × 9 1/8 inches)
Weight	Approx. 1.5 kg (3 lb 5 oz)

Accessories supplied

Connecting cable for the CONTROL L connector
L shaped stereo mini-miniplug ↔ 5-pin plug (2)
L shaped stereo mini-miniplug
↔ L shaped stereo mini-miniplug (2)
Connecting cable for the CONTROL S connector
L shaped miniplug ↔ L shaped miniplug (1)
Lithium batteries CR2025 (2)
AC power adaptor AC-D4L (1)

Design and specifications are subject to change without notice.

How to use the supplied spacers
Attach the spacers to the front rubber feet as illustrated.



Troubleshooting

If any difficulty should arise during operation, first check the power cord connection, then go through the following list. Should the difficulty persist, unplug the unit and contact your Sony dealer or local authorized Sony service facility.

Symptom	Possible causes and remedy
Recorder cannot be operated with the RM-E300	When the recorder is connected to the CONTROL L connector • Recorder connected to the CONTROL L connector for the recorder? • COMMAND MODE selector set to the correct position?
	When a Sony recorder without the CONTROL L or CONTROL S connector is used • Connecting cord connected to the CONTROL L or CONTROL S connector of the RM-E300? • COMMAND MODE selector set to the correct position?
	When other manufacturer's video product is used as the recorder. • Control signals memorized already?
Shuttle dial cannot be operated.	Tape at its end? If the tape is at its end, first rewind the tape using the ◀◀ REW button and then use the shuttle dial.
Automatic assemble editing cannot be executed after PGM EDIT button is pressed.	Before the PGM EDIT button is pressed, the recorder has been set to recording pause mode?
Character title cannot be memorized.	• CHARACTER indication lights in the display window? If it does not light, press the CHARACTER button. • C. POSITION button pressed?
Video image title cannot be memorized.	IMAGE indication lights in the display window? • When IMAGE 2/4 selector is set to 2, video image title is memorized in PAGE 3 or 4?